THE CULTIVATOR.

A CONSOLIDATION OF BUEL'S CULTIVATOR AND THE GENESEE FARMER.

CULT. VOL. X.—No. 1. ALBANY, N. Y., JANUARY, 1843. CULT. & FAR. VOL. IV.—No. 1.

PUBLISHED MONTHLY.

GAYLORD & TUCKER, EDITORS.

LUTHER TUCKER, PROPRIETOR.

One Dollar per annum—Six Copies for $5.

(PAYABLE ALWAYS IN ADVANCE.)

20 per cent commission on 25 or more subscribers, and 25 per cent commission on 100 or more.

Subscriptions to commence with a volume; and the money to be sent free of postage.

THE BACK VOLUMES OF THE CULTIVATOR,
Handsomely stitched in printed covers,
Can be furnished to new subscribers—Vols. I. II. III. IV. at 50 cents each, and Vols. V. VI. VII. VIII. IX. at $1. each.

THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

EMBELLISHMENTS OF THE CULTIVATOR.

WITH the first number of our new volume, we present our readers with a portrait of Mr. Prentice's splendid short-horn Bull "Fairfax," which attracted so much attention at the late Fairs of the New-York State Agricultural Society and the American Institute. The portrait was drawn by Van Zandt, and engraved by Orr, expressly for the Cultivator, and does great credit to both artists; and is, we think, the best specimen of this kind of engraving which has yet appeared in this country.

"Fairfax" is a pure white, and was two years old on the 10th of May last. At the late Fair of the N. Y. State Ag. Society, he received the first premium as the best two year old bull of any breed; and at the Fair of the American Institute the first premium for bulls, over two years old, was awarded to him. He was bred by E. P. Prentice, Esq. Mount Hope, near Albany; was sired in England by Sir Thos. Fairfax; d. Splendor, by Symmetry, 2723; g. d. by Young Bedford, 1701; g. g. d. by Isaac, 1129; g. g. g. d. by Whiteworth, 1584; g. g. g. g. d. by White Comet [sire of 1000*l.*] 1582; g. g. g. g. g. d. by a son of Charge's Kit, 2179.

The Sir Thomas Fairfax was bred by Jonas Whitaker, Esq., at Burley, near Otley, Yorkshire, England, and after having successfully contended for numerous sweepstakes and local premiums, without once having been beaten, took the first prize at the late meeting of the Royal Agricultural Society in Bristol. He was got by Norfolk, 2377; dam, Miss Fairfax, [page 509, 3d volume Herd Book,] by Fairfax, 1023; g. d. Lilly, by Young Warlaby, 2812; g. g. d. by Young Dimple, 971; g. g. g. d. by Snowball; g. g. g. g. d. Layton, a son of Mr. Charge's Gray Bull, 872.

Norfolk, 2377, was also bred by Mr. Whitaker, and got by Mr. Bates' Second Hubback, 1423; d. Nonpareil, by Magnet, 2240; g. d. by Mr. R. Collins' North Star, 489, &c. &c.

Miss Fairfax took the first premium at the great Show in Leeds, in 1839.

At the sale of Mr. Smith's stock, in September last, at West Rasen in England, Lord Adolphus Fairfax[2 yr. old] by the Sir Thos. Fairfax, brought 255 Guineas, [near $1,200] more than three times as much as the best by any other sire, and the cow Nectarine by Norfolk, the sire of Sir Thomas brought 150 guineas, while the average was less than £33.

In addition to this beautiful portrait, the present number contains the following engravings, making it altogether the richest in Illustrations of any that we have yet issued:

Fig. 2.—A Farm House, by T. M. Niven, Esq.
Fig. 3.—Principal Floor of do.
Fig. 4.—Chamber Floor of do.
Fig. 5, 6, 7.—Sections of do.
Fig. 8.—A Straw Bee Hive.
Fig. 9.—Hussey's Corn and Cob Crusher.
Fig. 10.—An Ornamental Gate.
Fig. 11.—A Hand Plow.
Fig. 12.—Mott's Garden Vase.
Fig. 13.—Thom's Sun Dial.

In the contributions of our correspondents, this number is also peculiarly rich, embracing, besides the interesting article from our Scotch correspondent, communications from Virginia, Vermont, Indiana, Ohio, Mississippi, Maryland, North Carolina, Massachusetts, Illinois, Wiskonsan, Upper Canada, and from the counties of Albany, Greene, Monroe, New-York, Onondaga, Orange, Richmond, Saratoga, Schenectady, and Wayne, in this state.

Having done what lies in our power, to render the Cultivator worthy of the patronage of our countrymen, it remains for us only to ask our readers to reciprocate the favor by doing what they can to promote its circulation. Our friends should remember that we begin the year with a new subscription list, and its length will depend mainly on their efforts to procure new subscribers. The "hard times" will prevent multitudes from renewing their subscriptions unless urged thereto by some one who feels an interest in the subject. How many of our readers will devote a little time to this matter? For any efforts they may be pleased to make, they will have our hearty thanks.

MR. COLMAN'S PROPOSED AG. TOUR.

BELOW we give, with great pleasure, a place to a prospectus of an Agricultural Tour and Survey, which Mr. COLMAN, so favorably known to the Agricultural public, proposes to make in England, and Continental Europe. The Fourth Report of his Agricultural Survey of Massachusetts, proves that the task he proposes to himself, is one admirably adapted to his talent of observation, and habit of recording valuable Agricultural facts. Derived as most of our agricultural methods and implements, are from abroad; imported as our domestic animals were from the same region in the outset, and where we must still look for important improvements in the various breeds, a close survey of the whole ground can scarcely fail to be attended with the most beneficial results. An acquaintance with the methods of English Husbandry will be of use to us, as furnishing hints to improvement, even when the processes themselves are impracticable, or too expensive for adoption here. We may state that the proposal has been received with signal favor, nearly 1500 names having already been obtained as subscribers. This number ought at least to be doubled, and we doubt not it will be, previous to the first of April next, at which time Mr. Colman proposes to sail for England. A subscription is opened at the office of the Cultivator, in which we shall be happy to enter the names of any of our friends.

EUROPEAN AGRICULTURAL TOUR & SURVEY.

Several gentlemen, interested in the advancement of Agricultural science and improvement and of Rural education, have proposed to Mr. Henry Colman, late Commissioner of Agricultural Survey of Massachusetts, to visit Europe for these objects. The plan is for him to spend a year in England in the examination of the Husbandry and Rural Economy of that country, and a year on the Continent in the examination of French, Flemish, Swiss and German Husbandry, and especially the Agricultural or Manual labor Schools and the Experimental Farms.

It is thought that such an examination, as yet never undertaken by an American, might, if well conducted, essentially conduce to the advancement of agricultural knowledge and improvement in this country; and especially serve the cause of rural and practical education, which is now exciting great interest throughout the United States. The general plan of the Survey will conform to Mr. Colman's Survey of the Agriculture of Massachusetts.

It is proposed to publish his reports in successive numbers. The first number is expected to appear by the first of January, 1844, and sooner if practicable. The rest of the numbers will follow in convenient succession at intervals of two or three months.

The whole work will be comprised in eight, or at most ten, numbers of at least 100 pages each, handsomely printed in octavo form, stitched and covered, and embellished with necessary and useful drawings and engravings, title pages and index.

The cost will be 50 cents each number to subscribers. Gentlemen who subscribe are understood as subscribing for the whole work.

As the enterprise involves of necessity a large expense, it is expected that one dollar per copy will be paid on subscribing; or otherwise one dollar on the delivery of the first number; one on the delivery of the second number; one on the delivery of the fifth number; one on the delivery of the seventh number; and one on the delivery of the ninth number, should the work be extended to ten numbers.

An early notice is respectfully requested of gentlemen who are disposed to encourage this enterprise, addressed to Henry Colman, Rochester, N. Y., or to Little & Brown, Boston, Mass.

It is intended that the numbers shall be delivered in all the large cities, and without expense to subscribers, unless ordered by mail.

Mr. Colman feels greatly indebted for the liberal encouragement which his personal friends and the public spirited friends of Agricultural Improvement, wherever it has been presented to them, have given to his enterprise; and designs to leave early in the spring. After the 1st March next he may be addressed at Boston, Mass.

Rochester, Dec. 22, 1842.

FARMERS' AND GARDENERS' CLUB.

On the 20th ultimo, there was held at the City Hotel, in this city, a meeting of Farmers and Gardeners from the counties of Schenectady, Rensselaer and Albany, for the purpose of forming a Farmers' and Gardeners' Club.

The meeting was more fully attended than was expected, although several from Columbia and Greene were absent, whose presence we confidently relied on.

An association to be called the Farmers' and Gardeners' Club was organized and resolved to meet monthly for the purpose of discussing Agricultural and Horticultural subjects, and for exhibiting the various products of the Farm and Garden.

Its first meeting is to be held on Tuesday, the 17th instant, at the Cultivator office, precisely at 10 o'clock.

The question for discussion, is the best mode of (mechanically) preparing the soil for the reception of seeds roots and plants.

☞ For City Agents see last page.

AMERICAN PORK IN ENGLAND.

THE anticipations of those who expected the new British Tariff would open a trade in American pork and beef with that country, are in a fair way to be realized to a considerable extent. The present extremely low prices of beef and pork in this country will doubtless contribute much to that result. In various parts of the United States extensive establishments have been opened for slaughtering, packing and curing beef and pork according to the English methods, which will doubtless render it more acceptable and saleable than it now is. We are not to be, however, without rivals in that market. A late letter from Buenos Ayres, states that a commercial house in that city had commenced slaughtering and packing 4,000 head of cattle and 20,000 sheep for the British market. It is amusing to witness the expedients resorted to by the agricultural, and to a considerable extent the other presses of the kingdom, to decry the imported articles. The people, the half starved people, however, seem to think that American beef and pork is far better for the purpose of sustaining life than none at all; and the low price at which it can be sold, is still better for them, and readily brings it into use. Sir John Tyrrel, M. P., has has taken upon himself the task of speaking down the sale of American meat; and the free use he made of Mr. Everett's name in support of his positions, has called out the Minister to correct some of the M. P.'s errors. The London Examiner gives a report of Sir J. Tyrrel's speech at an agricultural dinner in the West of England, from which we make the following extracts, as a specimen of the knowledge of American matters displayed by this M. P.:

"He had all along felt the competition we should be exposed to in pork and beef; but with respect to the imported pork, it was a matter of notoriety that it wasted very much in boiling, even to the extent of one-half. (Hear, hear.) The reason of this great waste had been intimated to him, by those who had recently been in America, and he would state it as a fact, because in distress it was always agreeable to listen to alleviating circumstances. In America the sheep were so worthless, that, except in a very few instances, the skin only was used, while the carcass was thrown away. The reason of that was, as had been stated by the American minister, whose ability and knowledge as an agriculturist he would not dilate upon, that they could not grow turneps or mangel-wurzel, on account of the heat in summer and the cold in winter. The way then in which the pork was fatted was this—the pigs ate the sheep. (Loud laughter.) He did not state this on light authority; in point of fact the pigs in America ate the sheep. (Continued laughter.) If this were the case, the poor man who bought American pork need not at all wonder at its great waste in boiling."

It is unquestionably true, that a few years since, large numbers of sheep were killed, their hides and tallow saved, and the flesh thrown at once to the pigs. We believe this is the extent of the foundation for this charge; and at the present time, mutton fed pork would be a rare article in the States. As to the turneps, beets, &c., we wish the Hon. Mr. Tyrrel could have seen some of the crops grown last summer in the vicinity of this city, as we think, if not as extensive as some British farmers' root crops, they might have served to convince him that turneps can be made to grow in America. A field of turneps, 150 or 200 of which would weigh a ton, are not to be sneezed at any where.

CULTURE OF COTTON.—Dr. Cloud of Alabama, informs us that circumstances have prevented him from furnishing for this number of our paper, the article on the Culture of Cotton, promised in his last communication. He says, however, that we shall have, in season for our next, in detail the modus operandi by which his experiments have been conducted, together with the character and quality of the soil, &c. It will be looked for with much interest.

HANCOCK (GA.) PLANTER'S CLUB.—This Club held a Fair at Sparta, on the 4th of November, which was well attended, and at which a numerous list of premiums were awarded on domestic products and stock. Several of the premiums for stock were awarded to our friends Capt. R. S. Hardwick and Col. John Bonner. The premiums on the best swine were awarded to the latter, on "Rip Van Winkle" and "Nonesuch," two animals sent him by Mr. Bement last autumn.

NEW-YORK STATE AG. SOCIETY.

THE annual meeting of the New-York State Ag. Society will be held at the Lecture Room of the Young Men's Association, in the Exchange, Albany, on Wednesday, the 18th of Jan. at 7 o'clock, A. M. The Annual Address will be delivered by the President of the Society, JAMES S. WADSWORTH, Esq.

A meeting of the Executive Committee will be held at the office of "The Cultivator," on Wednesday, Jan. 11, at 10 o'clock, A. M.

LUTHER TUCKER, *Rec. Sec'y.*

ADDRESS OF THE HON. JAMES M. GARNETT.

WHATEVER proceeds from the pen of Mr. Garnett, is sure to meet with a cordial welcome from the farmers of our country, and we should owe an apology to our readers for not noticing his able address before the New Castle Agricultural Society, in our last No., were it not for the fact, that that number being the closing one of a volume, it became necessary to occupy a large portion of it with Reports of Societies, and the favors of correspondents, that could not well be delayed.

After a happy introduction, Mr. Garnett proceeds to enumerate and explain some of the causes which have contributed to retard the progress of American Husbandry. The first of these, he traces to the natural fertility of our soils, inducing the general belief that they could never be worn out, and the consequent erroneous practices based on such a belief. These practices resulted in a general impoverishment of the soil, and created an opinion that it was labor lost to attempt a restoration of their fertility. Another obstacle in the way of progress, was to be found in the fact, that "one class of our farmers is characterized by a marvelous fondness for, and tenacity of their own crude, dogmatic opinions, and another by a too ready credence of the opinions of others;" especially of those considered scientific men. The first consider every thing printed on the subject of agriculture, as lies, or idle fancies; and the last are great theorizers, and ready to jump to conclusions before the premises are well established. Experiments, inconclusively conducted, and not carefully repeated, are put down as another cause of error. There is no use in drawing extensive applications from a single trial, and the disposition to do this, greatly lessens the benefit which may be derived from carefully conducted and repeated experiments. Another evil adduced by Mr. Garnett is our notorious fondness for "hobby horses and humbugs." His catalogue of hobby horses is an instructive one, and it might be much enlarged without at all exceeding the limits of truth. A disposition to grow monsters, and award premiums for such, in both animal and vegetable kingdoms, is another of the causes that have retarded our advance in agriculture. The principle here laid down by Mr. Garnett, is so obviously just, that we wish it may be impressed on the mind of every one who shall hereafter be called upon to act as a judge or committee at our Fairs. "It may be laid down as a principle without exception, *that all premiums having a tendency to render tillage and pasturage more showy than useful, more costly than profitable, directly retard instead of advancing the true interests of Agriculture.*" * * *

"In other words, to obtain the greatest results at the least cost of time, labor, and money, should be the invariable object of all Agricultural premiums, and of all Agricultural exhibitions." The last obstacle that Mr. G. mentions, is one which results from the times; farmers say, "it is hardly worth while to make crops; we can get nothing for them; neither is it worth while to improve our lands." This feeling, and it is too common, is justly pronounced by Mr. Garnett, "moody madness or sheer folly." "Making haste slowly," is far better than not advancing at all, and in the end we shall assuredly find our reward.

The remedy for these obstacles and these evils, is to be sought in the *proper employment of time.* And we should be happy to lay the whole of Mr. Garnett's remarks on this important subject, before our readers. He justly says, "this is the true, the only catholicon, or universal remedy for all diseases, both intellectual or corporeal. It will so operate upon farmers who depend for their subsistence chiefly on their manual labor, as to not only make them think that *labor honorable*, but never to intermit it, except for the purposes of necessary rest, food, moderate recreation, and improvement in that knowledge of their duties, and of the true theory of their profession, which can alone perfect their practice." Mr. Garnett in the following extract, deprecates that feeling of jealousy or ill will, which is sometimes found existing among the several classes of our citizens: "Be it ever remembered, that all the honest trades, professions, and callings of our community, are necessary links in the great social chain that binds us together. Therefore let not the members of either, but especially of our own calling, look upon any of the others with a jealous eye; for *their* general prosperity necessarily contributes to *ours*, since we produce what *they* must have, to live at all; and the richer *they* become, the more of *our* productions they must and will purchase." There is so much good sense, and important truth, in the following remarks on a topic not as frequently brought to the notice of all, as it should be, that we give them entire: "Farmers' daughters should be taught, among other useful truths, that often to labor with their hands, is to use them as God himself intended they should be used: that their heads may be exceeding empty and useless within, although externally loaded with as many costly ornaments as would buy a good farm; that their true, their most estimable adornments are, the knowledge and love of their duties; their most honorable occupation, to aid their mothers in all household concerns; that the strumming of musical instruments as a principal business; the attaining the art of dancing as the perfection of accomplishments; and the annual consumption of a large portion of their lives in long, stated migrations to places of fashionable resort, like so many birds of passage in search of their natural food, are modes of spending time, which cannot, by any proper use of langauge, be deemed worthy of rational, moral, accountable beings, who have intellects to cultivate, numerous highly important duties to perform, but above all, immortal souls to be saved." Merely adding that these remarks are as applicable to the daughters of every class as to those of farmers, and worthy the attention of all, we take leave of this address; with the feeling that by giving it to the public, he has added much to the obligations under which he has already laid the farmers of this country, by his exertions and labors in their behalf.

MR. RIVES' ADDRESS.

WE have had the pleasure of perusing the instructive address delivered before the Agricultural Society of Albemarle, Va. at the annual Fair held on the 29th of Oct. 1842, by the Hon. Wm. C. Rives, President of the Society. The high standing of the speaker was a sufficient guarantee of the ability with which the duty assigned him would be performed, and well has he discharged his obligation in this respect. The Society of Albemarle has had some of the most distinguished men of the nation for its presidents, among them President Madison, and Gov. Barbour, and Mr. Rives has proved himself worthy of treading in the steps of these able men.

Mr. Rives has some excellent remarks on the importance of association for public purposes. He says:

"This social principle is the modern lever of Archimides in all enterprises of public good, from making a railroad or canal to christianizing a world. There is no country in which it has been so extensively and efficiently employed, for general purposes, as in our own. This characteristic feature of American society was remarked upon, with his accustomed discrimination and judgment, by a learned and distinguished foreigner [De Tocqueville,] who visited us a few years ago, and who, tracing its existence to the popular character of our institutions, affirmed as a general philosophical truth, 'that in *Democratic* countries, the science of association is the mother of sciences; the progress of all the rest depends on the progress it has made.'"

Mr. Rives speaks encouragingly of the progress of agriculture under the auspices of the Albemarle Society, and points out some striking instances of this improved husbandry. His remarks on the general advance of agriculture are just; and those on the connection of science with the employment of the farmer, show an intimate acquaintance with the subject, and are forcibly expressed. The importance of agricultural education is illustrated, and earnestly enforced.

"We have in great numbers, schools of Law, schools of Medicine, schools of general Literature, but none of Agriculture. Why is this so? The recent census shows that the number of persons engaged in Agriculture, is four times greater than the whole number of persons employed in Commerce, Manufactures, the learned Professions, and trades of every description all put together. Does not every consideration of policy and justice, then, require the provision of some means of professional education, in an art to which so predominant and vital a portion of the industry and worth of the country is devoted?"

Mr. Rives earnestly urges upon Virginia, the necessity of providing for a Professor of Agriculture in her University, and establishing in connection with that institution, *a special Agricultural Institute*, designed for those who do not wish to follow the usual course of University studies, and in which department, theory and practice should go hand in hand. As a model of such an Institution, "a perfect exemplar," Mr. Rives refers to the establishment of Von Fellenburg, at Hofwyl, in Switzerland, of which he says:

"It was my good fortune during my residence in Europe, to visit this classic spot; and I can safely say, that I saw nothing in the palaces of kings, in the museums of the fine arts, in the gorgeous displays of wealth and power on every hand, which impressed me with half the admiration I felt in contemplating this modest but noble establishment of the Swiss republican, patriot and sage. Agriculture he chose as the basis of his enterprise, and by the happy combination, in the training of his pupils of intellectual and bodily labor, mutually relieving and giving zest to each other, he has achieved those prodigies of moral and physical improvement, which have drawn upon his institution the earnest attention and applause of the civilized world. It has furnished to Continental Europe, the best models of its agriculture, while it has sent forth into its various states and kingdoms, some of their most useful, virtuous, and enlightened citizens. At the same time, the model farm of Hofwyl stands a proud refutation of the stereotyped satires, so frequently indulged on scientific farming, as the accounts of the establishment kept with minute mercantile exactness, disclose through a series of years, a nett profit of 8 1-2 per cent upon the whole capital employed—a rate of profit with which, I venture to say, any of us *practical farmers* would be more than content."

Mr. Rives has used lime to a considerable extent, having abundance burned on his own land. He has applied 12,000 bushels to 150 acres, or about 80 bushels per acre. The result at first did not answer his expectations, finding little effect upon the growing crop from its use. He adds:

"My first disappointment, however, in regard to the effects upon the growing crop, was more than compensated by the marked, unequivocal, and decided effect I have never failed to perceive from the lime *alone* in the *clover* succeeding the wheat crop, with which it has been my general practice to apply the lime at the time of seeding, harrowing in the lime and the wheat at one and the same operation. The increased luxuriance of the clover has furnished, of course, conclusive evidence of the improvement of the soil from the application of the lime, and has in its turn, enured to the still further amelioration of the soil. All my observations in regard to lime, would lead me to the conclusion that it is the most *permanent* of manures."

Mr. Rives' lime was applied to soil of a brownish gray color, forming a close gravely loam. From a single experiment, he infers that lime is not adapted to the red ferruginous clay soils which abound in the same region. We believe a different opinion prevails with regard to the use of lime on those red clay soils in Maryland, and farther north, it being considered useful on them. Chemical analysis might, however, point out the causes of this discrepancy. It is, says, Mr. Rives, a proverb in England and Scotland, that

"He that marls sand, will soon buy land;
He that marls clay throws all away."

One of the most interesting parts of Mr. Rives' Address, is that which relates to the colonization of a number of citizens from Dutchess county in this state, in Fairfax county in that state. From inquiries instituted by Mr. Rives, it appears that nearly 60 families have purchased lands to the amount of 13,530 acres, to which they are now fast removing. Should this movement succeed, Virginia may expect a new era in her agriculture, and be spared the mortification of seeing her most effective population annually leaving her domain to seek homes beyond the mountains. We have long been aware of the disposition in many of our thrifty, intelligent northern farmers, many of whom are now in Michigan, Wiskonsan, and Iowa, to remove to Virginia; and nothing has prevented, but the well known existence of a feeling, (owing to peculiar institutions,) that labor is degrading. That feeling removed, the rich vallies of Virginia would find the stream of emigration now flowing beyond the lakes, turned into them, and the result would be a rapid augmentation of her population and her products. Mr. Rives may well congratulate his hearers on the accession of such men to the citizenship of Virginia, and their number will doubtless increase. We cannnot avoid considering it a favorable omen for our country, when her ablest statesmen and most unquestioned patriots, find a pleasure and relief in retiring from the cares of legislation or office, to their farms, managed with skill and success by themselves, and bringing the best powers of their minds, to inculcate and enforce the theory and practice of an improved agriculture.

MR. FULLER'S ADDRESS.

WE have been kindly furnished with a copy of the Address delivered by William Fuller, Esq. President of the Onondaga Co. Ag. Soc. at the Cattle Show and Fair held by the Society, Oct. 5, 1842. Mr. Fuller is well known as the firm and enlightened friend of agriculture; and his effective services in the legislature of this state, in its promotion, will long be remembered to his credit. The address now before us, furnishes another proof of his devotion to the great cause of an improved husbandry; while to the positions advanced by him, his situation as President of the Society of that influential and flourishing county, gives additional weight. We should be pleased to quote liberally from this address, but a few extracts will be all we shall be able to present. After some well conceived and beautiful allusions to the past, to the influence which agriculture has had on the peace and the civilization of the world, after mentioning the advantages resulting from the union of science with the practice of agriculture, Mr. Fuller preceeds to show its practical results, and the duties it imposes on us. Here he puts the following pertinent queries which we hope every farmer will answer for himself:

"I bring, however, no complaint, I prefer no charge,—but I ask, have we, in reference to our agricultural interest, always done our whole duty to ourselves, our country and our families? Do we try to elevate and magnify our calling? Do we in all suitable places, and at all suitable times, claim for the cultivator of the soil that high standing to which he is justly entitled? Do we endeavor to impress on the minds of our sons and our daughters, the value and real worth of their profession?—a profession full of happiness, contentment, and healthful enjoyment. On the contrary, do not some of us, the owners of noble farms all paid for, complain of the drudgery of the farm—that we can get no release from its duties to improve ourselves and our children? Do not some of us go further and draw invidious comparisons, injurious to ourselves, contrasting the plain comfortable garb of our son, with the gaudy finery of some city clerk, though that son is admirably filling up his destiny, and fitting himself for future influence and usefulness? Is this proper? Is this commendable? Is the position true? Who among all the different avocations of life, has more time to devote to useful reading, study and reflection, than we ourselves, far removed from the noise, and din, and dissipation of our cities; our sons and daughters can and will, if properly directed, take up the pages of history, of the sciences, and if you please, of politics, and in the quiet of our homes and the peace of our firesides, arrange, digest, and mature those truths and that knowledge, that will fit them for future action."

We cannot doubt that the farmers of Old Onondaga will cheerfully respond to this spirited appeal:

"Progress is emphatically the spirit of the age, and shall we, here in Onondaga, in a county containing an industrious population of 70,000 independent freemen, with an area of 465,000 acres of land, and almost the whole of it of the first quality for agricultural purposes—within whose borders there is more of the mineral manures than in any of our sister counties, possessing Lime, Marl, Gypsum, and Salt in abundance, and at our doors—shall we be behind the spirit of the age, and not turn to the best account all the advantages of our position? In short, shall we not meet manfully the responsibilities which our position imposes on us?"

Mr. Fuller strongly urges upon the farmers of Onondaga, the importance of instituting experiments on the value of salt as a manure; and gives from Prof. Johnston's work, a table showing the result of experiments made by Mr. Fleming, near Paisley in Scotland; showing its value when compared with other manures of a mineral nature. The soil was a heavy loam, a crop of potatoes was harvested in 1840, the ground sowed to wheat, and to one-eighth of an acre in each experiment, the mineral manures were applied. The following was the result of the three most efficient manures:

160 lbs. of nitrate of soda per acre, gave 152 lbs. of wheat for 31s. or 12s. 6d. per bushel.

80 lbs. of nitrate and 5 cwt. of rape dust, gave 400 lbs. of wheat for 43s. 6d. or 6s. 9d. per bushel.

160 lbs. of common salt, gave 472 lbs. of wheat for 3s. 6d. or 6d. per bushel.

Thus showing a decided advantage in favor of the salt, in both quantity of grain, and the cost of producing it.

Mr. Fuller ably enforces the necessity of our paying more attention to this kind of manures, by instances of success among ourselves, many of which are recorded in

the Cultivator, and to some of which he alludes. On the subject of agricultural education, and particularly the necessity of having the basis of agricultural science and practice taught in our common schools, Mr. Fuller takes true and strong ground. There can be no good reason given why boys and young men, intending to make agriculture a pursuit or profession, should not in the common school, be able to acquire that elementary knowledge at least, so essential to future advance, and final success:

"What," asks Mr. Fuller, "is the great business for life of a large portion of our population? Agriculture! We teach our children to read and write, together with the elements of arithmetic, geography, and grammar. All this is well, but will such an education meet all the wants of practical life—has the time spent in the acquisition of knowledge been as well spent as it might have been—could not some time have been spared to learn the geology and chemistry of soils, not only how soils are formed, but of what they consist?"

We hope to see this subject attracting more and more attention, for we are confident it is one of vital importance to the progress of improved husbandry. Agricultural education has not received the attention it deserves from individuals, or from the state. We want schools at which both the theory and the practice of agriculture shall be taught to those who most need it, the sons of farmers, or those who intend themselves to become farmers. We want well arranged agricultural school books for the use of common schools, and agricultural works or periodicals, should form a part of every school district library. The want of such instruction in agriculture, is more and more deeply felt by thousands. We have now before us, a letter from a gentleman liberally educated, a skillful practical farmer, and the owner of one of the best farms in the state, making some inquiries as to the analysis of soils, and lamenting that a part at least, of the time spent by him in the study of the languages, had not been devoted to chemistry, as connected with agriculture. This case is not a singular one. There are multitudes who feel the want of a more thorough knowledge of agriculture, and they should let their voices be heard in favor of a radical reform in this matter. Let us hope that the sensible remarks and forcible appeal of Mr. Fuller, in behalf of a more extended agricultural education, will not be unheeded.

AGRICULTURAL EXPORTS OF THE U. STATES.

THERE is annually published at Washington, a statement of the commerce and navigation of the country, in a volume of some 400 pages. From that embracing the statistics of 1841, the last published, we extract the following summary of the principal exports for the year:

Products of the sea,	$2,846,851
" " forest,	6,264,852
" agriculture,	83,677,947
" manufactures,	13,593,072
Total of Domestic exports,	$106,382,722

The agricultural products are classified as follows:

Products of Animals.		
Beef, tallow, hides, horned cattle,	904,918	
Butter and cheese,	504,818	
Pork, bacon, lard, live hogs,	2,161,627	
Horses and Mules,	293,143	
Sheep,	35,767	
		$4,360,130
Product of Vegetables.		
Wheat,	822,881	
Flour,	7,759,646	
Indian corn,	312,954	
" meal,	682,457	
Rye meal,	138,503	
Rye, oats, and small grain,	159,893	
Biscuit, or ship bread,	378,041	
Potatoes,	64,402	
Apples,	48,396	
Rice,	2,010,107	
		$12,377,282
Tobacco,		12,806,703
Cotton,		54,330,341
Flaxseed, Hops, brown sugar,		103,441
Total of agriculture,		$83,677,947

Such tables are valuable, as showing the relative products that go to make up our exports, and consequently of paying other countries for the articles we purchase from them. They also exhibit the proportion each of the great interests of the country contribute to the sum total of products, and as a fair matter of inference, the protection and care to which they are severally entitled to receive from the hands of Government.

PRICES OF WHEAT.

THE following table of the comparative prices of wheat in America and Europe, taken mostly in December, of 1840, will we think be of interest to many of our readers. It is calculated per bushel of 60 lbs., and will show that there are some places nearer England than we are, where wheat is as low as here, and from whence as a matter of course, Great Britain could draw supplies, were her markets for wheat open, before they could be forwarded from this country.

New-York,	$1,04	to 1,08	Archangel,	$ 96	to 1,02
Philadelphia,	96	1,05	Rostock,	1,02	1,08
Baltimore,	96	1,02	Hamburg,	1,02	1,12
Montreal,	1,03	1,07	Koningsberg,	1,02	1,23
London,	1,80	2,00	Kiel,	96	1,05
Paris,	1,23	1,38	Leghorn,	81	1,26
Bordeaux,	1,35	1,49	Genoa,	1,08	1,33
Marseilles,	93	1,40	Ancona,	93	96
Nantes,	1,26	1,38	Stettin,	96	1,05
Dantzic,	99	1,23	Naples,	96	1,03
Riga,	1,38	1,49	Trieste,	1,02	1,17
Petersburg,	1,29	1,38	Santander,	1,32	1,38
Tagaurog,	84	87	Odessa,	90	98

Notices of New Publications.

LIEBIG'S ANIMAL CHEMISTRY.

WE intimated in a late number, our intention of giving an extended notice of this new work of Liebig, but have hitherto found no space; and the extensive circulation it has received from the press of the New World, added to that of several American editions in the book form, has rendered such notice now a work of supererogation. Very few writers have had the satisfaction of finding their works so extensively read as Prof. Liebig; and we may add few works have so well deserved to be read as his. Liebig has made no reply to the criticisms which have appeared on his first volume, Chemistry applied to Agriculture, although some of them were sufficiently caustic. He has done better, and in the time which more irritable men would have spent in controversy, he has produced a second volume, giving still more profound proofs of his chemical skill, and of the success with which he is interrogating nature. It is a volume which will be read, and re-read; one which compels men to think, to study, to reflect. Abridgment of it we have found impossible; for the whole may be said to be a series of propositions, not independent, but so woven together and dependent on each other, that separation is difficult. Men who think the world is moving too fast, the *vis inertiæ* class, who dread to have old opinions disturbed, or cherished notions shaken, will decry, not confute, Prof. Liebig; while those who see in each successive conquest of science, a vantage ground for still greater achievements, will look with interest for the Professor's third and concluding volume of this series. The practical inferences which may be drawn from his beautiful demonstrations of the use of carbon in the animal system, may be seen in the following extract from that part of the work which describes the effects of the food of the carnivora and gramnivora in nutrition. It furnishes more matter for thought than volumes of ordinary declamation.

"Man when confined to animal food, requires for his support and nourishment, extensive sources of food, even more widely extended than the lion and the tiger, because, when he has the opportunity, he kills without eating.

"A nation of hunters on a limited space, is utterly incapable of increasing its numbers beyond a certain point, which is soon attained. The carbon necessary for respiration, must be obtained from the animals, of which only a limited number can live on the space supposed. These animals collect from plants, the constituents of their organs, and of their blood, and yield them, in turn, to the savages who live by the chase alone. They, again, receive this food unaccompanied by those compounds, destitute of nitrogen, [starch, sugar, &c.] which during the life of the animals served to support the respiratory process. In such men, confined to an animal diet, it is the carbon of the flesh and of the blood, which must take the place of starch and sugar.

"But 15 lbs. of flesh, contain not more carbon than 4 lbs. of starch, and while the savage with one animal and an equal weight of starch, could maintain life and health for a certain number of days, he would be compelled, if confined to flesh, in order to procure the carbon necessary for respiration, during the same time, to consume five such animals.

"It is easy to see, from these considerations, how close the connexion is between agriculture and the multiplication of the human species. The cultivation of our crops, has ultimately no other object than the production of a maximum of those substances which are adapted for assimilation and respiration, in the smallest possible space. Grain, and other nutritious vegetables, yield us, not only in starch, sugar, and gum, the carbon which protects our organs from the action of oxygen, and produces in the organism, the heat which is essential to life, but is also in the form of vegetable fibrine, albumen, and caseine, our blood, from which the other parts of our body are developed.

"Man when confined to animal food, respires, like the carnivora, at the expense of the matters produced by the metamorphosis of organized tissues; and, just as the lion, tiger, hyena, in the cages of the menagerie, are compelled to accelerate the waste of the organized tissues by incessant motion, in order to furnish the matter necessary for respiration; so the savage, for the very same object, is forced to make the most laborious exertions, and go through a vast amount of muscular exercise. He is compelled to consume force, merely in order to supply matter for respiration.

"Cultivation is the economy of force. Science teaches us the simplest means of obtaining the greatest effect with the smallest expenditure of power, and with given means to produce a maximum of force. The unprofitable exertion of power, the waste of force in agriculture, in other branches of industry, in science, or in social economy, is characteristic of the savage state, or of the want of cultivation."

DANA'S MUCK MANUAL—Second Edition.

Right glad are we to find that Dr. Dana's Muck Manual has so soon reached a second edition, an early copy of which has been forwarded us. Considerable additions, among which are a full index, add much to the value of the work. We have but little to add to the extended review which we gave of the first edition in our last volume. We can recommend it to our farmers as one of the very best theoretical and practical works on manures, and their action, that has yet been published. The present edition is well bound in cloth, and will be sold at the reduced price of 62½ cents. The farmer who does not avail himself of the stores of information contained in this volume, neglects one of the best aids to his progress.

NATURAL HISTORY OF NEW-YORK. *Parts* II *and* III.

The second and third parts of this plendid state work have been laid on our table, but at so late an hour that we have barely time to announce their publication to our readers. Part I contained the introduction, and Dr. DeKay's Report on the Mammalia of the state. Part II is Dr. Beck's Report on the Mineralogy of the state; Part III is Prof. Vanuxem's Geological Report of the Third District. Dr. Beck's report is a volume of some 550 pages quarto. It is divided into 2 parts, the first, Economical Mineralogy, and the second, Descriptive Mineralogy. It contains a most instructive survey of the various minerals found in the state, salt, plaster, lime, iron, lead, &c., &c. It is accompanied by plates illustrative of the various forms of crystallization. We shall doubtless have occasion to refer to this work more at length hereafter.

The report of Prof. Vanuxem forms a volume of more than 300 pages, and embraces the survey of the counties of Montgomery, Fulton, Otsego, Herkimer, Oneida, Lewis, Oswego, Madison, Onondaga, Cayuga, Cortland, Chenango, Broome, Tioga, and the eastern half of Tompkins.

It will be seen from the list of counties enumerated, that the third district embraces a very important section of the state, one containing the great deposites of salt and gypsum, as well as the various kinds of lime-stone found within its limits. From the known talent of the surveyor, we had been led to expect much from his labors, and the rapid glance we have been able to cast over its pages, has convinced us the public will not be disappointed. Embracing as it does, the whole series of New-York rocks, from the primitive, to the verge of the Pennsylvania coal series, it comprehends a great variety of formations, distinctly marked both in their external, and fossilleferous characters. Introductory to each of the groups into which the whole series is divided, are well executed engravings of such fossils as are characteristic of that group, to the general accuracy of which we can bear willing testimony. The great regularity of the New-York series of rocks, and their extension to the west, renders their proper classification and understanding, of much consequence to the American Geologist. We shall endeavor to give a more extended notice of this report hereafter. In the mean time we can only say that this state work, in its progress, more fully developes the necessity and utility of the undertaking, and the ability of the individuals to whose hands its execution was entrusted.

SPARKS' LIFE OF WASHINGTON.

We have received from the publishers, Tappan and Dennett, of Boston, a copy of Sparks' Life of Washington, abridged: 2 volumes 12 mo. This is an abridgment of the Life prepared by Mr. Sparks, as introductory to the "Writings of Washington," in 12 volumes. A work from the pen of Mr. Sparks stands in no need of eulogy from us; but when that pen has been employed in illustrating the history of the Father of his country, we feel a pleasure in calling the attention of our readers to the fact.

Where is the American that has not read a Life of Washington?—and where is there one who would not gladly set down to the perusal of another? Long years ago we read the magniloquent volume of "Parson Weems;" then the standard and voluminous work of Chief Justice Marshall; then the Writings of Washington, and always found much to admire and approve that we had before overlooked. There is something in the character of Washington unlike that of ordinary men; in him we cannot trace those workings of selfishness or ambition, which so much mar the history, and disfigure the character of many of the most prominent men of the age. Sage, Patriot, Saviour of his Country, these are his acknowledged titles. He has a hold on the affections of his country which no other man can have; which no other one will probably ever deserve. As a Farmer, Washington was immeasurably in advance of the times. His letters show a clear-sightedness on this subject, as strongly marked as those relating to War or Government. The publishers deserve the thanks of the public for bringing out this work in so good a style, and every family in the country should possess a copy.

From the same publishers we have also received a work entitled "Universalism Examined, Renounced, Exposed, in a Series of Lectures; by Matthew Hale Smith." It is doubtless well worth examination; but notices of such polemical treatises do not fall within the limits of our periodical.

HOPS—GREAT YIELD.—We believe the past season has been a favorable one for hops, but the low prices experienced for several years past, has discouraged the cultivators, and many growers have abandoned the business. Mr. Gurdon Avery, of Waterville, Oneida co., according to a statement by him in the papers of that county, has raised this year, on 12 acres of land, 29,937 lbs. He challenges the world, on both quantity and quality, for $1,000 dollars, on the same quantity of land; or quality without quantity, or quantity without quality, for $500. Mr. Avery is doubtless safe; for his crop is unequaled by any one on record. In England, the average is 7 cwt. per acre; and the very highest rated at 20 cwt. per acre; while Mr. Avery's is about 25 cwt.

Foreign Correspondence.

MR. COKE OF HOLKHAM, EARL OF LEICESTER.

Roxburghshire, Scotland, Nov. 25, 1842.

MESSRS. EDITORS,—Under the above title, you have inserted in the Cultivator for Oct. 1842, some extracts from biographical notices of the late Earl of Leicester, published in England. Your own comment upon the life and character of that great and good man, is admirable and very just. But the biographical sketches from which you have made extracts, are inaccurate in some respects. I will take the liberty of pointing out those errors. And believing, that any authentic information on the improvements in agriculture effected under the patronage, precept, and example of Mr. Coke of Holkham, will be acceptable to your readers, I will add a few reminiscences of that eminent man; and this, I have the satisfaction of saying, I am enabled to do from personal knowledge.

In your extracts, the Earl of Leicester is stated to have been 91 at the time of his decease. He was in fact 88: having been born on the 6th of May, 1754, and died on the 30th June, 1842. The mistake is not important, but in biography, as in most other matters, it is as well to be correct in dates. Your extract then states, "Born to the possession of a princely estate, when he came to take charge of it, he found a *large portion of it* leased to a *Mr. Butt*," &c., &c. What follows in regard to the rent on the first lease being at 1s. 6d. the acre, and on the second lease at 3s. the acre, is so far correct. But the tenant's name was *Brett*, not Butt as stated, and the *larger portion of the estate*, was only about 500 acres, situated near to Holkham mansion. It now forms a part of the domain in hand, and is enclosed within the park wall. At the expiration of Mr. Brett's second lease, Mr. Coke offered him a renewal for 21 years, at the rent of 5s. the acre, tithes included. Mr. Brett, unfortunately for himself and family, as it afterwards proved, did not accept the offer. Mr. Coke then took the farm into his own hands, and hence, fortunately for the community at large, he became a practical farmer. He was much attached to the pursuit, and zealous in the improvement of agriculture; he gradually increased his farm, and before his death, he occupied upwards of 3000 acres of arable and pasture land, all of which he had brought into a high state of cultivation. The extract further states, "West Norfolk at that time was a rye-growing district. His Lordship made it a wheat-growing one," &c. To this I add: Before Mr. Coke's time, Norfolk was a wheat importing county. It is now one of the greatest wheat exporting counties in England. The distance from Holkham to Lynn, in West Norfolk, is 27 miles. When Mr. Coke commenced farming, that was entirely a rye district. It was believed the soil was too light to bear wheat; but now, there is not an acre of rye to be seen in the whole line, and nothing but wheat in the regular course of rotation of crops. The port of Lynn was formerly a great mart for the export of rye: it is now so for wheat and barley.

The surface soil of West Norfolk is generally a light sand, or sandy gravel, too inferior to be styled loam. It is incumbent upon a chalky subsoil, which is locally termed Chalk, Marl, Clay, according to the texture. Mr. Coke commenced the improvement of his farm by thoroughly clearing it of running rooted weeds in the first instance. He then coated the surface with the subsoil, and applied copious dressings of broken rape cake, in addition to the yard-dung made upon the farm. The turnep crops, which had previously been scanty, were then, not only increased in quantity, but also improved in quality. These were eaten by sheep folded upon the turnep. The soil was farther enriched by droppings from the sheep, and consolidated by their treading, and thus rendered capable of bearing any sort of crops cultivated in England. He then established a regular system of rotation of cropping and manuring, upon what is called the alternate system of white and green, never having two cereal or white straw crops in succession. Very light land was allowed to lay two or more years in grass, and when broken up, only one white straw crop before fallow and manuring for turneps. The top-dressing of subsoil was repeated, at from 20 to 30 years intervals. Peas were sown occasionally, and great crops produced. Peas will not bear frequent repetition on the same land. Peas thrive upon land having a large proportion of calcareous matter: consequently, they were generally sown at Holkham in the rotation after top-dressing with sub-soil.

At the time Mr. Coke commenced farming, all sorts of crops were sown broadcast, and the land choked with annual as well as perennial weeds. He extirpated the perennial by clean fallowing, but the seeds of annuals were not entirely destroyed by that process. He then introduced the drill or row culture, and horse-hoes, and by these means he entirely eradicated the weeds, roots and seeds. Before Mr. Coke's time, turneps, now the very essence of Norfolk husbandry, were very imperfectly cultivated in the county. He introduced the drill culture of that inestimable root, upon the most improved principle. He also introduced the culture of mangel-wurzel, or field beet, for the purpose of feeding cattle, and was particularly successful in the practice. Mr. Coke's system of feeding stock in the stalls and fold yards, was as follows: He began with common turneps, then Swede rutabaga, followed by mangel-wurzel, and topped up with oil cake; thus giving more nutritious food as the cattle advanced in fatness.

Mr. Coke patronized all improvements in agriculture, agricultural implements, and application of manures, and he liberally rewarded the inventors or discoverers. His practice was, to experiment with any new discoveries, or improvements, upon his farm in hand, in the first instance, and if found to answer, he then recommended the practice to his tenantry and the public generally.

Mr. Coke was a very superior judge of stock. He imbibed a taste for it in early life, from an acquaintance he then formed with the celebrated Bakewell. He at that time resided with his father, Mr. Wenman Coke upon the Longford estate in Derbyshire, old Lady Leicester being then alive and residing at Holkham. Bakewell's farm at Dishly in Leicestershire was at no great distance from Longford, and Mr. Coke had frequent interviews with that eminent stock breeder.

On the decease of Lady Leicester, Mr. Wenman Coke succeeded to the Holkham estates. He survived only one year after that accession. And Thomas William Coke, the subject of this memoir, became possessed of the whole of the family estates in Norfolk and in other counties of England, altogether, as your extract styles it, "a princely estate."

I have said, "Mr. Coke was a very superior judge of stock." When he became a practical farmer at Holkham, as before stated, he made trial of various breeds of neat cattle and sheep, but ultimately fixed upon *North* Devon cattle and South Down sheep, on finding from experience those breeds most suitable for the climate and light soil of West Norfolk. He never approved of crossing animals of distinctly different characters or breeds. His working horses were stout, active, well shaped animals, suitable for the light soils and short distance to markets. The horses were mostly employed in carting to market and upon the farm. A great part of the plowing was done by oxen of the *North* Devon breed; from 40 to 50 of those cattle were usually worked upon the farm; a pair in a plow yoked abreast, and tackled the same as horses with collars and traces. Their pace was quite equal to horses plowing in the same field, and that even in hot weather, which is a peculiarity in *North* Devons above all other breeds, owing to their high blood, and in that respect, like race horses. There are three distinct breeds of cattle in Devonshire. The *North* Devons are the highest blood, and the best for general purposes. I could furnish much more information on the Holkham husbandry, but I fear I have already exceeded reasonable bounds; I cannot, however, properly close without explaining the means by which Mr. Coke, much to his honor, and greatly to the public benefit, so widely diffused his knowledge in agriculture, derived from his extensive and successful practice in that first of arts.

Mr. Coke was a most liberal landlord, and he was fortunate in having a most respectable body of tenantry settled upon his estate; men of intelligence, and possessed of capital adequate to fully stocking their farms and carrying on improvements. He granted them 21 years leases at moderate rents. He never advertised his farms for letting at the expiration of the leases. On fixing new rents for renewal he gave the preference to the old tenants, their sons, or near relatives, and they very generally accepted without the least demur. He built them excellent dwelling houses, and complete farm premises for the accommodation of their stock.—He assisted them in the expense of beneficial improvements on their farms.

He frequently visited his tenants in the vicinity of Holkham, and those upon distant parts of the Norfolk estate, at least once in the year. On these occasions, he inspected the stock, crops, cultivation of the farm, and state of the buildings upon it; the farmer being present and hearing his remarks. Then alighting at the farm house and partaking of the hospitality, interesting himself in the comforts of the wife and children, and rejoicing to hear of the family's prosperity. He freely communicated to his tenants information upon his recent experiments, whether the results were successful or otherwise, and gave them advice upon their own practices. He frequently invited parties of his tenants and other eminent agriculturists in the neighborhood, twenty or more at a time, to visit him at Holkham, ride over his farm, and then dine with him at his hospitable mansion. In those parties there was a free discussion upon agricultural subjects, and much valuable information was elicited and diffused. Mr. Coke's tenantry closely followed his example of cultivation, cropping, manuring of land, and selection and management of stock. Their neighbors copied from them, and the Holkham system spread rapidly in Norfolk and the adjoining counties. Agriculturists from distant parts, had free access to, and a kind reception at Holkham at all times; and at Mr. Coke's far famed annual sheep-shearing festivals, he received numerous visitors from all parts of the three Kingdoms, and many from foreign countries, and frequently gentlemen from the United States. These festivals lasted three consecutive days; the programme of which, as follows: The company assembled upon the lawn in front of the mansion at ten in the morning. Mr. Coke then mounted his horse, and accompanied by a large train of visitors, rode over his farm or the adjoining farms of his tenants, Mr. Coke ably lecturing upon agricultural subjects, and experiments in progress, as they went along; also, inspecting the plowing matches for premiums. The sheep-shearers at work, various agricultural implements at work, exhibiting for premiums; and at different farm establishments upon Mr. Coke's occupation, the horses, neat cattle, sheep, and pigs brought forward in competition for premiums, were viewed and judges appointed to decide upon their respective merits. The company adjourned to the mansion at three o'clock, and were admitted, by ticket, previously distributed by Mr. Coke, to a sumptuous dinner provided for them. The company were numerous, generally from 400 to 500; in one instance above 800, and all seated at the same time, without confusion, orders having been previously transmitted to the mansion, to make preparation, according as Mr. Coke distributed his tickets in course of the day's ride. In those numerous and happy assemblages, there was no classification of rank or station—all being embarked in the same pursuit. A plain farmer might be seen seated next to a peer of the realm, perhaps a Royal Duke, or an American Ambassador, and treated with similar respect. Mr. Coke presided over one table, and some eminent patron of agriculture, such as the late Duke of Bedford, the Earl of Albemarle, &c. over the others. After the cloths were withdrawn, Mr. Coke's first toast was "the Sovereign," then followed, "live and let live;" after which he lectured upon agriculture, including the pursuits of the day. Other gentlemen spoke upon similar subjects, and the company generally broke up about nine o'clock. A similar routine followed on the second and third days; but on the third he distributed his premiums, to the amount of about £300; sometimes considerably more, to the successful competitors. He then drank a bumper to the health of the company, thanking them for their attendance, expressing a hope he should see them all at the following year's meeting, and that they would bring their friends along with them.

So finished the Holkham sheep-shearing festivals, and I will conclude my memoir of the greatest, most munificent, and most successful patron of agriculture the world ever saw, in your graphic words, Messrs. Editors. "Such men as the Earl of Leicester are benefactors of mankind, and when the Marlboroughs and Wellingtons, of his own country, are weighed against him, they will be found wanting."

I again subscribe myself, your correspondent,

TWEEDSIDE.

YATES COUNTY AG. FAIR AND CATTLE SHOW.

THE second annual meeting of this Fair was held at Penn-Yan, on the 20th of October, 1842, and was in every way worthy and creditable to the agriculturists of that county. It was a gathering of her true nobility;—her hard-fisted, intelligent farmers and mechanics, and indicated that the farmers of Yates are beginning to feel and appreciate the nature and importance of agricultural improvement. The improvement in stock since last year, was visible to all. The large number of fine blooded animals—cattle, colts, pigs, &c., showed what was going on among the farmers, and was full of promise for the future. Long tables appropriated to their use in the Court House, were covered with vegetables, fruits, flowers, specimens of domestic manufacture, the products of the dairy and the loom, and all those articles of taste and fancy which none but woman could devise, and none but her industry execute. The address was by Francis Adams, Esq., President of the Society, and is spoken of as an admirable one, "full of just sentences, of deep and well digested thought, and sound and wholesome advice." The reports, and the awards of premiums, were listened to with much interest, and the whole proceedings passed off in the most cheering and gratifying manner.

MONROE COUNTY AGRICULTURAL SOCIETY.

WE have delayed our notice of this flourishing society in the hope of receiving a more full and detailed account than we have yet seen, but find ourselves obliged to be content with such particulars as can be gathered from the papers of Rochester. The Fair was held on the 25th and 26th of October, and was well attended by the substantial farmers of that fine agricultural county, their wives and daughters. The citizens of Rochester in which the show was held, manifested no little interest in the proceedings, and the mechanic's department was particularly well sustained. The exhibition of products of the garden and orchard, was somewhat limited, but the quality was excellent. The sugar beets, turneps, cabbages, celery, carrots, salsafy, mangold wurtzel, &c., &c., would have satisfied an epicure.

The plowing match excited unusual interest. It was held about two miles from the city, and was witnessed by a large concourse of farmers and others. 17 horse-teams without drivers entered the lists; time allowed 60 minutes for horses; depth of furrow 5 inches, width of furrow 10 inches; land measured one-quarter of an acre. "Racing was wholly proscribed." The work throughout was well done, although the ground by many was considered unfavorable for smooth work.

Of animals, Mr. Colman says—"there were several highly improved animals and some excellent native stock among the neat cattle. The magnificent Stud Horse of Mr. Weddle, a horse of most remarkable size and power, and designed for labor, attracted universal admiration. A team of four yoke of oxen from Mr. Ayrault, and some other cattle from Perrinton, and other places, of native stock, and of a cross of the Durham with the Devon, would have done honor to any show in the country. The Leicestershire swine were there likewise in their glory, fairly distancing the Berkshire; and a family of pigs, five months old, which, within our knowledge, could hardly be surpassed for size, thrift, and beauty."

An address was delivered before the society by Mr. Colman; and the premiums announced, with the excep-

tion of those on crops (which were reserved for the winter meeting,) on the afternoon of the second day. The address, with reports of committees, &c., have, we understand been published for the use of the society. The course of the Monroe Society is destined to be onward, or we have greatly mistaken the spirit, intelligence, and liberality of the farmers of that county.

WASHINGTON CO. AGRICULTURAL SOCIETY.

THE Second Fair and Cattle Show of this Society, was held at Salem, Oct. 11, and came off in the most spirited and happy manner. The day was unusually fine, one of those calm, beautiful days, the glory of the American autumn; and the numbers collected to witness the proceedings, surprised even the most sanguine. It was indeed a general turn out of the entire mass, farmers and others; and we are happy to state, that to the presence of the matrons of the county, and their fair daughters, much of the interest of the day was owing. This is right; enlist the services and the presence of the ladies, and our agricultural societies will flourish. And why should they not be present as well as their husbands or brothers? To what hands can the arrangements of articles of taste, of domestic manufactures, of flowers, &c. be so appropriately confided as to the hands that produced or cultivated them. The address was delivered by the Hon. John Savage, and is spoken of as "an instructive, unostentatious discourse, well adapted to the occasion, and aboundtng in logical deductions from incontrovertible facts."

The show of Horses, Cattle, Sheep and Swine, was unexpectedly good, although it was well known that few counties contained more choice animals than Washington. Mr. Long, of Cambridge, received the first premium for horses; John Savage, of Salem, for the best bull; Harry Holmes, of Greenwich, for the best cow; James Lake, Whitecreek, for the best Buck; and John J. Steel, Salem, for the best Boar. There were a great number of competitors for the premiums, and the several committees in many cases found no little difficulty in making their decisions.

The show of Agricultural implements was not great, and it was a subject of regret that so few of the mechanics of the County availed themselves of this best of opportunities to advertise their various products and articles. The chairman of the committtee, J. Williams, Esq. of Salem, had agreed to furnish a Dynamometer for use upon this day, but on examining various instruments, he found them so uncertain in their results as to be of little value, and he accordingly at his own expense, constructed a new instrument, upon a plan in many respects original. This was exhibited at the Fair, and in the opinion of good judges, promises to accomplish all that can be desired of such an implement. Mr. Williams certainly deserves the premium he received, as well as the thanks of his fellow farmers, and we should be highly gratified to receive from him a description and drawing of the instrument, to be engraved for the Cultivator.

The specimens of Domestic Manufactures were very numerous, and spoke well for the industry of the fair hands by which the greater part of them were prepared and presented. The samples of carpeting, linens, ladies' hats, sewing silk, cocoons, laces, lace veils, woolen shawls, &c. &c. attracted, and deservedly, much notice. The crops offered for premiums, proved, that however they may have failed in other places, in Washington they have been most abundant. We have arranged some of these in the table below:

			Bush. per acre.
Wheat,	1st Premium,		29, winter wheat,
	2d	"	22, 28 qts., spring wheat.
	3d	"	25, 7 " " "
Corn,	1st	"	80⅛, 8 rowed yellow.
	2d	"	67½,
	3d	"	85, China tree corn.
Rye,	1st	"	25, 11 quarts.
Oats,	1st	"	83½, average on 8 acres.
	2d	"	97, 4 quarts.
	3d	"	80, 6 "
Potatoes,	1st	"	510½, Merino, seed cut. 20 bushels planted.

We find also the following account of an experiment made by Mr. Holmes, in sowing corn broadcast:—"On the 5th of May, I sowed broadcast and harrowed in, 12 quarts of corn on half an acre and eleven rods of ground without manuring, and it was not touched again until the 22d of Sept., when I cut it up, and set it up on the ground, in the same way that I did the corn which I planted in hills; and on the 5th of Oct. I husked from it 46 bushels of ears, (i. e. nearly 91 per acre.) I have got a much larger amount of fodder than from any piece of the size which I have planted, and I have no hesitation in saying that the stalks will more than pay all the labor of raising it." Farmers will doubtless another year, many of them at least, try the experiment of sowing corn broadcast, as a resource for winter fodder, as in every instance where it was tried the last, either for soiling or for winter use, it was eminently successful.

TOMPKINS COUNTY CATTLE SHOW AND FAIR.

We were kindly furnished, by one of our friends in Tompkins county, with papers containing an interesting account of the Show and Fair of that county last October; but it has unfortunately disappeared from our desk, and we are obliged to substitute a brief notice furnished in a note from another friend in that county. We the more regret this, as the society of Tompkins county is one of the most active and efficient in the state, and its reports in the various departments of the Fair, are such as might serve as models for many others. Our friend says—"The Show and Fair this year was, in almost every respect, a decided improvement on the one of last year. The attendance of farmers and others was greater; the best spirit every where prevailed; a generous feeling of emulation and devotion to the good cause seemed to actuate all; the show of stock, cattle, horses, sheep, and swine, was excellent. There were many beautiful cattle present, and Tompkins has for years been celebrated for some of the best flocks of fine-wooled sheep in the state. These were well represented, as were also the various sorts of pigs at present most prized by breeders. The show of domestic manufactures was, as it always has been in this county, good, and speaks well for the taste, skill, and industry of the ladies of Tompkins. In the department of vegetables, fruit, &c., it is enough to say, that all present were surprised at the variety and excellence of the specimens on the tables. In this respect, high as the character of Tompkins has heretofore been, she may be said to have exceeded herself." We cannot doubt, judging from the representations that have reached us, that the meeting was in all respects a most gratifying one, and calculated to give a decided impulse to the cause of agricultural improvement in that part of the state.

Notes for the Month.

CORRECTION.—In the communication of Commentator, in our December number, in the last line of the second column, instead of "prevents all shaking," read prevents all choking; and in the 17th line of the third column, instead of "grown state," read green state.

THE FARMERS' REGISTER.—The 10th vol. of this publication closed with the las year, and with it terminated the editorial labors of EDMUND RUFFIN, its able conductor and proprietor from its commencement. He has disposed of it to T. S. PLEASANTS, a gentleman well qualified to succeed even Mr. R., by whom it will hereafter be edited and published. A new series will commence with the present year. Petersburg, Va., monthly, 64 p. 8 vo. at $5 per year.

THE NEW GENESEE FARMER.—Mr. Colman having determined to spend a year or two in Europe, this publication has been transferred to Messrs. Crosman & Shepard, by whom it will hereafter be published. Mr. Colman will continue its editor till April, and will be a regular correspondent through the year. The paper is to be enlarged at the commencement of a new vol., this month, and the price raised to $1,00.

"THE INDICATOR: *a Miscellany of Self-Improvement*," is the title of a magazine published in New-York, by J. D. Lockwood, every alternate month. Each number contains 64 pages, and is embellished with an engraved frontispiece. Price $1.50 per year. The first three numbers have been laid on our table, and their perusal has afforded us high gratification. It is devoted to "the discussion of principles that promote the acquisition of knowledge, the culture and discipline of the mind, and the formation of character," and we should rejoice to see it take the place, especially in the hands of our young men, of the numerous "popular" magazines which are so rapidly spreading over the country, to the great detriment of a more substantial and useful literature.

AMERICAN TURF REGISTER.—The December No. completes the 13th vol. of this work, now the oldest magazine in the country. It is embellished with a beautifully executed portrait of the celebrated racer "Boston," on steel, and an outline of "Bee's Wing," a famous English race horse. To the breeders of blood horses, this magazine is invaluable. A new vol. commences with the year. Terms, $5,00 per year. W. T. Porter, Esq. Editor, New-York.

FAT COW.—Mr. L. V. V. Schuyler, of Watervliet, in this county, recently slaughtered the six year old Durham cow, which he exhibited at the late State Fair. Her weight was as follows:—The four quarters 890 lbs.; tallow 150; hide 93; total 1,113 lbs. That the beef was of the best quality, we had sufficient proof in the fine steak sent us by Mr. Schuyler.

AGRICULTURAL SCHOOL.—T. Fanning, Esq. one of the editors of that excellent paper, the Agriculturist, at Nashville, Tenn., proposes to open an Agricultural School at the commencement of the present year. As it is an experiment, he will limit the number of pupils the first year, to twelve. We rejoice to see a gentleman of his talents and energy, engaging in such a work, and of his success we cannot permit ourselves to doubt.

THE LATE STATE FAIR.—Adam Ferguson, Esq. of Woodhill, Canada West, who acted as chairman of the committee on Bulls, at our State Fair, has published a flattering account of his visit to our state, in the British American Cultivator. Of the stock exhibited, he says: "It is impossible for me to give any correct account of the host of fine animals on the ground. I was aware that much attention had been paid to Short Horn Stock in New-York and adjoining states, but I was not prepared to see animals of symmetry and beauty, which might have competed successfully in any British exhibition. I was much pleased with the sheep pens. Leicester, South Down, and Cotswold, in high perfection. The great size and fine form of the latter, will be a sure panacea for renovating Leicesters when they become too fine."

IMPORTATION OF SILK.—The Nashville Agriculturist states, that in the last twenty-one years, there has been imported into this country, the enormous amount of two hundred and thirty-eight millions of dollars worth of silk and silk worsted goods. From the experiments already made, there is no reason to doubt, but that these goods can just as well be raised and made here as in Europe.

SELF-FODDERING BARN.—One of our correspondents, Mr. J. HORSFIELD, in speaking of the self-foddering barn, a view of which is given in our last vol. at page 147, says:—"The appearance of the barn itself, upon paper, and indeed the whole arrangement and construction of its exterior, I will readily admit to be proper enough, and as Mr. Mitchell says, 'a sightly object;' but for the practical operation of self-foddering, it will undoubtedly prove a total failure. Of the interior arrangements he gives us no description, and we practical farmers are led to infer, that the whole space within, from the ground floor to the roof, is to be occupied by the hay; and if so, I would like to inquire of Mr. Mitchell, how the self-foddering operation is performed. It appears to me, that if he had had much experience in foddering or the management of hay, he would readily see that the rack after being once eaten out by the cattle to the extent of their reach, would need something more than the pressure of superincumbent hay to replenish it. And if Mr. Mitchell wishes to furnish hides for the tanner next spring, in my opinion he has only to enclose his cattle with such a barn, however well filled, without giving them the assistance of human hands."

KENTUCKY CORN CROPS.—The Louisville Journal states that Mr. P. Chamberlin, of that neighborhood, raised an extraordinary crop of corn the past season. The rows were laid off two and a half feet apart, with a single stalk every 18 inches in the rows. Mr. C. had one acre measured, and the produce was 112 bushels. All the work which he gave his corn, was to pass a cultivator through it once. The ground was of the ordinary fertility of his farm. The season was very unfavorable to corn, inasmuch as not a drop of rain fell in July, the time at which the corn most needed rain.

MOLASSES FROM CORN STALKS.—Mr. Vaughn of Henry co., Tenn., has been successful in producing molasses from corn stalks, which is declared to be preferable to that made from the sugar cane. He ground the stalks in a very simple mill, which cost but six dollars, which was run by two horses, and produced 120 gallons of juice per day. Five gallons of the juice made one of molasses. He thinks sixty gallons of molasses may be made from an acre of corn.

FATTING HENS.—Paine Wingate, in the Maine Farmer, says his experience tells him that the following process is the best mode of fattening hens. Shut them up where they can get no gravel. Keep corn by them all the time, and also give them dough once a day. For drink give them skim milk. With this feed they will fatten in ten days. If kept over ten days, they should have some gravel, or they will fall away.

NEW GRASS.—Capt. Ross, in his narrative of his Southern Expedition, describes a grass found on the Falkland Islands, which promises, according to the account given in the New Farmers' Journal, to be a valuable acquisition in all maratime districts. "Every animal here feeds on it with avidity, and fattens on it in a short time. It may be planted and cut like the Guinea grass of the West Indies. The blades are about six feet long, and from 200 to 300 shoots spring from one plant." A man will cut about 100 bundles in a day, and horses and cows would eat the dry grass from the thatched roofs in preference to good grass of other kinds. It loves a rank wet peat bog, with the sea spray over it. What is to hinder this grass from taking possession of the large tracts on our coast, now producing only worthless coarse salt or bog grass? It is called the "Tussack Grass."

STEAM ROTTING HEMP.—A discovery that promises much for the agriculture of the west, has been made, and the experiments made have been eminently successful. The great obstacle in the way of the Hemp culture, has been in the rotting; dew rotted being unfit for the principal uses to which that article is applied, and water rotting being injurious to the health of those engaged, as well as requiring considerable nicety in the operation. It has been found that hemp submitted to the action of steam, is rotted thoroughly in a few hours, and that the quality is of the very best kind. We perceive that Mr. Sullivant, the great corn grower and farmer, near Columbus, Ohio, has this year raised a fine crop of 40 acres, being his first attempt. Should the process of steaming succeed as well as is now anticipated, we may shortly expect to find the rich vallies of the west supplying the United States with hemp, instead of importing it from Russia, as we now annually do to a large extent.

RULE FOR ASCERTAINING THE WEIGHT OF CATTLE BY MEASUREMENT.—A correspondent sends the following from an English paper:—"Measure the girt close behind the shoulder, and the length from the fore part of the shoulder blade along the back to the bone at the tail, which is in a vertical line with the buttock, both in feet. Multiply the square of the girt expressed in feet, by five times the length, and divide the product by 21, the quotient will be the weight of the four quarters in imperial stones of 14 lbs. avoirdupois. Example:—If the girt be 6½ feet, and the length 5½ feet, we shall have 6½ multiplied by 6½=42¼, and 5½ multiplied by 5=26¼; then 42¼ multiplied by 26¼=1109 1-16; and this divided by 21 gives 52 4-5 stones, nearly; or 52 stones 11 pounds. It is to be observed, however, that in very fat cattle, the four quarters will be about 1-20 more; while in those in a very lean state, it will be 1-20 less than the weight obtained by rule."

PROPER TIME FOR CUTTING WHEAT.

THE readers of the Cultivator will recollect that we gave in the volume for 1841, page 127, some interesting experiments made by our correspondent, J. Hahnam, Esq. North Deighton, Yorkshire, England, on this subject, which excited much attention; and in which he announced his intention of more fully carrying out the experiments upon which he considered himself as having but just entered. In the last No. of the Quarterly Journal of Agriculture, we find a most valuable, and as we conceive, conclusive paper on the subject of cutting wheat; being the result of the promised experiments, and which, as its length forbids our inserting it entire, we shall condense for our columns, in the tables omitting such fractions as have no important bearing on the question.

In the former case, Mr. H. selected only three specimens for trial, or specimens cut at three different times; in the present instance, five different cuttings, as follows:

No. 1, reaped	Aug.	12th,	stacked	Aug.	26th.
No. 2, "	"	19th,	"	"	31st.
No. 3, "	"	26th,	"	Sept.	6th.
No. 4, "	"	30th,	"	"	9th.
No. 5, "	Sept.	9th,	"	"	16th.

At stacking the several parcels, a sheaf was taken from each, for the purpose of exhibiting samples at the Fair of the Wetherby Ag. Society, and the Show of the Highland Ag. Society. We ought to have stated that 20 perches of wheat, grown on soil of the same quality, and the same kind of grain, were reaped at each cutting. No. 1 was very green, only fully formed in the berry, and raw; No 5 was fully ripe. No. 5, in the sample, was bold, but coarse; while Nos. 1 and 2, were finer in the skin, but small, showing they had shrunk some. The raw cut No. 3, was unexceptionable, being as plump as No. 5, and superior to 1 and 2, in thinness and uniform clearness of skin. There was little difference between 3 and 4, except that the last was more rough than the first.

In February, the whole of each specimen was carefully threshed and cleaned under the immediate superintendence of Mr. H., as indeed was performed every other step of the process. The following shows the result as regards quantity:

No. 1, gave 2¼ bush.	weight	11 st. 12 lb.	and straw,	22 st. 7 lb.
No. 2, " 2½ "		11 st. 1 lb.	"	21 st. 3 lb.
No. 3, " 3½ "		15 st. 10 lb.	"	20 st. 8 lb.
No. 4, " 3 11-16 "		16 st. 6 lb.	"	19 st. 2 lb.
No. 5, " 3½ "		14 st. 13 lb.	"	18 st. 0 lb.

Mr. Hannan now proceeded to test the value of the several specimens for milling, and each kind was ground and dressed by Mr. Hardcastle, one of the best and most experienced millers of the county of York, and the result was as below:

No.	Gross quantity.	Weight of Grain.	Weight of Flour.	Pollard.	Bran.	Waste.
	Bushels.	St. lb.	St. lb.	St. lb.	St. lb.	
1	2¼	11 12	8 12	12	2 1	1
2	2½	11 1	8 6	11	1 11	1
3	3½	15 10	12 6	12	2 1	5
4	3 11-16	16 6	12 3	1 3	3 5	9
6	3½	14 13	10 11	1 9	2 5	2

From the above table, the quantity of flour, seconds or pollard, and bran, per bushel of the wheat, may be deduced as follows, fractions omitted:

No.	Flour.	Pollard.	Bran.	Weight per bushel.
1	45	4	10	60
2	47	4	10	62
3	49	3	8	62 6-7
4	46	4	8	62
6	43	6	9	60 5-7

The same table gives the per cent of flour, seconds, and bran; or the quantity of each that 100 lbs. of grain would yield, fractions omitted:

No.	Flour.	Seconds.	Bran.
1	75 lbs.	7 lbs.	17 lbs
2	76	7	16
3	80	5	13
4	77	7	14
6	72	11	15

It thus appears that No. 3, is superior to all the other varieties; giving more per bushel than No. 5, by 6½ lbs. of flour; and a gain of about 15 per cent on the flour of equal measures of grain. 100 lbs. of wheat No. 3, makes 80 lbs. of flour; while 100 lbs. of No. 5, yields 72 lbs. showing an advantage of 8 per cent in favor of grain cut raw.

In grinding, it was found that No. 5 ground the worst, worse than No. 1. In No. 5, were a greater quantity of flinty particles which would not pass the bolt, than in any of the others. The bran from No. 5, was coarse and heavy; while that from No. 3, was "thin as a bees' wing."

The flour from the various wheats, was worth at the time, 2s. 6d. per stone, the pollard 1s. 3d. and the bran 10d. per stone. Taking the straw at the current value of 2d. per stone, real value of the respective cuttings will stand thus:

Total value of the product of twenty perches,

No. 1,	£1	8s.	7½d.
No. 2,	1	7	7½
No. 3,	1	17	3
No. 4,	1	17	2
No. 5,	1	13	11½

An estimate of the value per acre, founded on the foregoing calculations, gives for the value of an acre of

No. 1. Cut a month before fully ripe,	£11	9s.	2d.
No. 2. Cut three weeks " "	10	16	4
No. 3 Cut a fortnight " "	14	18	0
No. 4. Cut ten days " "	14	17	4
No. 5. Cut ripe " "	13	11	8

The difference in quantity between Nos. 1 and 2, and No. 5 amounting to a bushel on 20 perches, Mr. H. thinks was more owing to the pillage of birds, (it being the earliest cut wheat in the neighborhood,) than to actual shrinkage, though the latter was considerable. To settle this point of shrinkage, he instituted an ingenious course of experiment with glass tubes and water, to determine the relative size of the berry of each kind. A number of these determined that between 3, 4, and 5, there was no difference; while it required of No. 1, 1,110 grains to displace as much water as 910 grains of either of these, and of No. 2, 1,005 grains. The actual value per acre, determined in this way, slightly changed the relative value of Nos. 1 and 2, making the first £11, 17s. 0d, and the second £13, 6s. 0d. Thus there was an actual loss per acre, of the green wheat No. 1, of £1, 14s. 8d; compared with No. 5; and of No. 2, a loss of 5s. 8d. per acre, compared with the same standard. On the other hand, No. 3, or that cut raw, showed a gain of £1, 6s. 4d. compared with the ripe, and of £3, 1s. per acre, as compared with the green No. 1.

At this point of his experiments, Mr. Hannam thus sums up the advantages, or rather profits of cutting wheat in a raw state, or a fortnight before it is fully ripe, rather than letting it stand till that period:

1st. A gain of 18 per cent of flour upon equal measures.
2d. A gain in the weight of straw of 14 per cent.
3d. A gain of 7s. 5d. in the value of every quarter of wheat.
4th. A gain of £1, 6s. 4d. upon every acre producing 28 bush.

The actual value of flour for the purpose of nutrition, depending in a great measure on the gluten it contains, a sample of Nos. 3 and 5, was analyzed by Prof. Johnston, and he found them to contain respectively, No. 3, 9.15 per cent of gluten; No. 5, 8.9 per cent of gluten. Thus proving that the wheat which gave the greatest quantity of flour, gave also the best.

It is unnecessary to pursue the able investigation of Mr. Hannam, farther. The result may be thus stated in his own words: "With an additional quantity of flour and straw, already considered, we have *a better quality of both*, a *better chance of securing them*, and a *saving in securing them*."

In this country, the subject of the proper time for cutting wheat is deriving great importance from the liability of its being attacked by the mildew or rust; the evil of which might in a great measure be avoided, should experience prove that raw or even green wheat would lose less when cut, than when allowed to stand, after such attack. As having a direct bearing on this subject we may mention the following. A farming friend of ours, growing wheat extensively, found last season, that one of his fields of wheat, then in a very raw or green state, was badly struck with rust. He determined to cut it at once, and did so, amid the laugh, or the pity of his neighbors, who thought him little less than crazy. The adjoining field suffered little from rust, and stood till fully ripe, yet at threshing the wheat first cut gave the finest wheat and the best yield. Mr. Hannam mentions a similar instance in which it was remarked of a farmer who was cutting his wheat early, that he "had cut grass, and stacked muck," yet when threshed, it yielded four bushels per acre more than it was estimated at, and was sold for the highest price in the market. In this country, the same reason, arising from bad weather or a late harvest, does not exist here for early cutting, as in England, but there are others which render the subject of little less interest here than there; and the agricultural public of both countries, are certainly much indebted to Mr. Hannam, for the skill and perseverance with which he has pursued these investigations in all their parts.

SOWING CORN BROADCAST FOR SOILING, &c.

WE are gratified to learn from various sources, that the experiment so strongly recommended by Mr. Ellsworth, of the Patent Office, Washington, from his own experience, of sowing Indian corn for fodder, has been repeated by many farmers the present season, and in every instance that we have learned, with the best success.

In a visit to the farms of Mr. Bement, and Mr. Sotham, near this city, last autumn, both these gentlemen mentioned the subject to us, and stated that the quantity of food so produced, exceeded their highest expectations, and besides was of the very best and most nourishing quality. It was used in soiling. Had they seen fit to have cut and cured it for winter's use, and then cut it with a chaff or straw cutter, it is evident that nothing could have made a better food for almost any of our domestic animals.

John Welles, Esq. of Natick, Mass. has given in the N. E. Farmer of Sept., an account of an experiment made by him this season, in sowing corn, which was most satisfactory. One kind of corn used by him, was the common sweet or sugar corn. At the appearance of the spindle, the corn was cut, (Aug. 22,) and the yield was 13 tons, 1225 lbs. per acre. Another kind of corn was the Southern flat corn, sowed in rows. This was taken at the time of spindling, and the product was little over 21 tons to the acre. Mr. Welles ascertained by experiments made at different periods, that after spindling, there was a decrease of weight.

In an editorial article in the same paper on this subject, it is stated that "several years since, the editor's father weighed the produce of one square rod of rich land, sowed with southern corn in drills, and obtained about 37 tons per acre; and last week his brother, in Wenham, weighed the stalks from one square rod, similarly planted, but the ground less rich, and obtained at the rate of between 21 and 22 tons per acre."

In the N. E. Farmer, of Oct. 12, we have the following statement from Mr. Geo. Denny, of Westboro, Mass.: "In 1839 and '40, I sowed corn in drills for green fodder. The last and the present year, sowed southern white corn broadcast, followed by the harrow and roller. Aug. 6th, with a careful hand, cut and weighed the corn on one square yard. The product gave at the rate of 52 tons and a fraction to the acre. Aug. 19th, for the purpose of testing the correctness of the estimate made on the 6th, and also of satisfying myself what might be expected from ground in proper condition to plant for the grain—with a careful and judicious person to assist, we measured and weighed with much care, and found the production was at the rate of 65 tons and a fraction to the acre.

August 22d, cut and weighed,	229 lbs.
Sept. 28, the same weighed,	71
Loss,	158

Or 69 per cent; giving, say 20 tons of dry fodder to the acre—which if well cured, is considered by some equal to 10 tons upland hay. Three bushels of seed, allowing some for the crows, is sufficient."

Mr. J. J. Marshall, of Conn., gives the result of an experiment made by him the past season, in the Farmers' Gazette. He sowed five-eighths of an acre, on land well prepared, at the rate of 4 bushels of common seed corn per acre, on the 18th of June, and covered with a small turning plow, very shallow. July 21st, the corn was between five and six feet high, and began to lodge. It continued to grow, except that immediately on the ground, which rotted, till it began to ripen, when on the 19th September, it was cut with grass blades and weeding hoes. The product was at the rate of 44,367 lbs. per acre. The product of one square yard, where the corn was not lodged, was at the rate of 130,580 lbs. per acre.

Fed out in the ordinary way in which cured corn stalks are usually fed, a large portion of them, and that the most valuable, is lost; but when cut, as they should be, in a straw cutter, the whole will be eat, and prove the most nourishing of foods. When corn is sowed for soiling or curing, it should be on rich ground, early in the season, or so that it may have the advantage of the hot months, both for growing and curing. Curing at a late period, would be difficult if not impossible.

MR. MILLER'S REPORT.

WE have been favored with a Report made by WM. MILLER, Esq. one of the delegates from the Henrico, Va. Ag. Society, to the late meeting of the N. Y. Ag. Society, at Albany, embodying his impressions of that meeting, and of the agriculture of the north generally, as far as it fell under his notice. We are able to give but a brief synopsis of the Report. The show of cattle and sheep, Mr. Miller thought very good, but the horses and hogs nothing to boast of. The straw cutter of Messrs. Botts & Burfoot, of Richmond, he considered superior in some respects to the northern ones, particularly for the south, in which opinion, the Committee of the Society, it appears, concurred with him. He also thinks the Virginia plows better adapted to their use, than the northern ones. Mr. Miller remarks that the introduction of threshing machines, and the small amount of hoed crops cultivated at the north, has deprived the southern farmer of the advantage he once possessed of getting his grain into market earlier than the northern one. The farmer of New-York frequently threshes his wheat as soon as it is cut, as he has no hoed crops, such as corn and tobacco to work over as the Virginia one has, and which he is obliged to attend to as soon as his wheat is harvested. Consequently the first gets his wheat into market, as early, or earlier than the last. Mr. Miller recommends an entire change in their system, and says that to achieve this, the best method will be to follow the footsteps of their northern brethren. The three field system generally pursued in Virginia, he condemns as destructive, and recommends in its stead, one of six. To illustrate his meaning, he gives for examples, two farms he visited near Lancaster; one of 40 acres, divided into eight fields, was cropped as follows:

5 acres in corn,	product	300	bushels.	
10 "	wheat,	"	340	"
5 "	oats,	"	300	"
5 "	rye,	"	100	a failure.
10 "	hay,	"	30	tons.
5 "	pasture.			

Mr. Myers' farm, 1¼ miles from Lancaster, had 200 acres of land divided and cropped as follows:

30 acres in corn,	50 bushels per acre,	1,500	bushels.	
40 "	wheat,	30	"	1,200 "
30 "	oats,	50	"	1,500 "
60 "	hay,	1¼ tons	"	90 tons.
40 "	pasture.			

Mr. Miller adds:—"Their farmers universally pursue the same system; every field is separated by fences. Corn, then oats, then wheat, then rye, then clover and timothy; they fallow one oat field, and one clover field for wheat, and they apply their manure to their wheat land, either plowing it in, or harrowing it in with their wheat. They use lime and plaster freely. So far are we behind the north in our improving system, that I consider we are fast asleep; and from what I learned whilst at the north, I concluded if we did not rouse one another, not many years would pass before the northern people would do it, and call upon us, as unjust stewards, to surrender our homes to those who would give a better account of their stewardship. The population of the north are very restless, and will emigrate wherever they can better their condition. Already some of them are making the experiment, by purchasing a large tract of land near Alexandria. I can draw no more appropriate comparison of the two sections of the country, than by com-

paring Virginia to a miser who locks up all the gold, or as Mr. Adams says, selling a portion of her patrimony for her yearly support, while New-York puts hers out at compound interest." Mr. M. enters into a comparison of the cost of working, on the three and the six field systems, and decides in favor of the latter; independent of the fact, that in the latter system the farm is constantly growing richer, and under the former is constantly growing poorer, till the soil becomes useless. Mr. Miller makes one suggestion, which strikes us as of great importance to the farmers of Virginia, that is, that instead of selling off all their cattle to be fattened in northern pastures, they should be fed at home, thus providing that supply of manure, the more careful management of which, is one great source of the superiority of Pennsylvania and northern farming.

CHOICE OF A BUSINESS FOR LIFE.

Much of our personal happiness, our relative standing in society, and the influence we exert on mankind, is depending on the first steps we take in the choice of a business for life. Every man should have something to do; idleness is a disgrace as well as an injury, and the young man who fancies he is going to live without exertion, has taken one step, and a long one too, to ruin. No matter what may be the respectability or wealth of his parents, a reliance on these, instead of a well founded confidence in his own powers, proves him to be either weak or wicked, or both. It may be asserted without the fear of contradiction, that taking a given number of individuals, there are more young men who turn out worthless, idle, and dissipated, among those whose parents are wealthy, than in any other class of society, and the reason is perfectly obvious; their expectations and their habits, are alike fatal to the industry and the patient effort required to form and discipline the body and mind to success in life. Wealth, separated from industry, is a curse to the possessor, and the most serious evil that can befal the young, is to have the idea impressed on the mind, that business of any kind is unnecessary.

If business of some kind is indispensable, a proper choice of business is not of less consequence to the individual. We are not believers that one man is born a poet, or a divine, or a lawyer, or a metaphysician, or a farmer, or a physician, more than another. The powers of the mind are unquestionably greater in some individuals than in others; but the same degree of power will render the person as successful in one pursuit as another, if the power is properly directed. It requires as much talent to be a lawyer, as to be a divine, a merchant, or a farmer, and no more. In all the pursuits and business of life, men of very little talent and energy of mind are found; but in all, knowledge, tact, and perseverance, are necessary to insure success.

To be useful to the world, to benefit mankind, to furnish an example which if followed, will make men wiser and better, should be among the first aspirations of the young; personal enjoyment, distinction, competence, wealth, are, or should be, secondary. As a general rule, that course in life which may be denominated the medium one, the path that avoids equally the perilous elevation of wealth, or the dangerous depression of poverty and want, will be found the one which unites the prospect of greatest utility with the greatest personal happiness. Competence, that condition in life equally remote from the insolence of wealth, or the cringing of poverty, is not less to be desired now than in the days of Agar, or less conducive to positive enjoyment. That pursuit, then, which best fulfils these indications, which gives time for the acquisition of useful knowledge; which gives the greatest assurance of a sound mind in a sound body; which inculcates and fosters sound principles of morality and honest industry; which avoids the fluctuations, the ups and downs of life, and invitingly leads the mind through the mazes and mysteries of nature, up to nature's God, must be the one best adapted to the wants of mankind, the one which will ensure the greatest happiness of the greatest number. It would, we believe, require but little effort, or reflection, to convince any one, that in the pursuits of Agriculture, in the profession of the Farmer, are to be found the conditions so essential to the prosperity of the individual. In the exciting but corrupting influences of the political wrangling, or the ceaseless struggle for the spoils of office, going on around him, he takes little interest; in the fluctuations of trade or commerce, he sees nothing that should endanger or disturb his equanimity; the theological or philosophical controversies of the day, battles fought over, perhaps for the thousandth time, he views in their proper light, as the offspring in most cases of dogmatic ignorance; and on his snug, paid for, and well managed farm, with the means of education, intelligence, and competence in his possession, he sees little to alarm in the signs of the times, and views with equal composure the failure of a bank, the blowing up of a cabinet, or the bursting of an immense speculation bubble.

We wish every parent, when deliberating on the choice of a profession for his son, every young man who is setting out in life, and has its thousand avenues of pursuit from which to choose, before him, to carefully ponder these things. There are higher interests than whim, or fashion, or prejudice, to be consulted; and were this invariably done, we cannot doubt that widely different results would frequently be reached. Sounder views with regard to the dignity of labor would prevail, and the rush into the professions, by which they have been completely overdone, would have been checked at once. Let the young man, before he determines to abandon the farm, for the medical school, the theological seminary, the merchant's counter, or the law office, carefully count the cost, and calculate the probable chances of success. Let him run over the list of doctors, lawyers, ministers, and merchants, with which he has been acquainted, and see how many of them have increased their opportunities of benefiting mankind, or of acquiring wealth, over those they would have enjoyed, had they remained or become farmers. Let him compare the nature of their pursuits, its fluctuations, the wear and tear of health and conscience, the scramble for existence or money, with those of the substantial farmer, honest, industrious, well educated himself, and educating his children, taking a lively interest in all that is of real utility to mankind, while quietly managing his farm and its concerns. Few are aware how many failures among merchants and professional men, such an examination would disclose. Gen. Dearborn stated before the Massachusetts legislature, that he had ascertained by reference to the books of the custom house, the banks, the probate office, and the oldest merchants of Boston, that ninety-seven out of every one hundred engaged in trade, or in buying and selling, failed, or died insolvent. This seems a large proportion, but we believe any person extensively acquainted with mercantile affairs, will agree that the General is probably right. In the country, the failures will be rather less, but still so numerous as to cause a parent to hesitate before placing his son in a pursuit so uncertain. The editors of the Journal of Commerce, found that of about 1000 names and firms of business men, found under the letter B, in the directory for 1837, nearly one-half are not to be found in that of 1842, showing that this proportion have failed in five years. Have the doctors, ministers, and lawyers, been much more successful? Let all who are making a choice of business for life, examine for themselves, and answer and decide accordingly.

SHEEP IN THE WEST.

Our readers may remember that in a former volume of the Cultivator, we noticed a work called the "Western Shepherd," by Mr. Flower, of Illinois, in which many valuable notices of the introduction of fine wooled sheep, and particularly of the flock of Mr. Flower, into the western states, may be found. A late number of the Lowell Courier, contains a paper of great interest on the wool culture of the west, its prospects, and the vast field which the western prairies present for the production of fine wool. The writer takes the position that the prices of wool have fallen so low in comparison with the advanced prices of land in the older states, that fine wool can no longer be grown to a profit, on a broad or national scale, east of the Allegany mountains, since where the price of land ranges from 20 to 40 dollars per acre, wool must give way to other and more valuable products, wheat for instance. The numerous experiments made within a few years, of which Mr. Flower's may be considered one of the earliest and most important, have proved that the western prairies are admirably adapted to the production of wool, particularly the finer kinds, and that at present prices, it will pay far better than any other product. It is calculated that in Illinois alone, fifteen millions of acres of prairie exists; and the quantity to be found in Wiskonsan, Iowa, and still farther west, may be said to be limitless. As population increases, the wolf, which has been the most formidable impediment to the increase of sheep, must disappear, as there are no mountainous districts to afford him shelter; indeed, in a large part of Indiana and Illinois, this evil may be said to have already passed away.

The experiment and experience of Mr. Flower, is important and valuable in more respects than one. His own statement of the matter, from the work alluded to, is as follows:—"The history of my own flock, kept in the southern part of Illinois, is favorable to the fine wooled breed. They are from the Merinos of Spain, procured just before the French overrun the country. Sir Charles Stuart, the English Ambassador, purchased the Royal flock. He shipped them after a hurried drive, scarcely out of reach of the pursuing enemy, some hundreds of miles. Six thousand only, reached the shores of England; and after the lapse of a year, two thousand sheep survived. These were purchased by my father. * * Some additions were afterwards made from the Paular and Escurial flocks. When I emigrated to this country, in 1817, I brought with me, six of the finest animals of the wool bearing species ever brought to this country. This is the origin of my flock; they have been kept on the same district and on the same farm, where I now reside, ever since. No deterioration of the wool has taken place; on the contrary, the wool fibre of them is somewhat finer. Eighty ewes, purchased of Mr. Beecher, at Lancaster, Ohio, formerly from the Steubenville stock, has been the only addition to the pure bred stock."

Mr. Flower has this year brought his wool to Lowell, where it was purchased and stapled by the Middlesex Company. The wool has proved to be of a very superior quality, and the several sorts received the highest prices; thus proving that Mr. Flower has exercised much skill as a breeder, and that the prairies are well adapted to the production of the best wool. For 25 years, Mr. Flower's flocks have for seven months in the year, pastured on the wild grasses of the prairie, and have kept fat and in fine health. We find in the article of the Courier, one statement to which we invite the attention of our readers, as we believe that overlooking the facts stated, has been the means of seriously injuring the qualities not only of carcass, but of wool, in many of our best eastern flocks:

"A single good quality in wool, urged beyond a given point, at the expense of other qualities, becomes a fault, and the breed is then said to run out. A fault early perceived in the Saxony fleece, has increased in some of our finest flocks to an alarming extent. The wool grows too thin upon the pelt, and the fibre, though extremely fine, has a silky, rather than a wooly appearance. The cross between the old Merino and the Saxon, corrects this quality, but is liable to one objection. The Merino fleece has too much gum. The fleeces from the finest of Mr. Flower's bucks, although a shade less fine in fibre, than the finest fleeces of some of our eastern flocks, have retained to a singular degree, a peculiar softness, and the wooly quality of fleece so desirable in every description of wool. It has been a question with breeders for some time, where to find a new family of sheep with which to improve the breeds already here. It is now found, and in the right place."

A single glance will show the extent to which wool production may be carried in the West. Illinois alone, allowing only two sheep to an acre of prairie, might send abroad 30 millions of fleeces. The cost of transporting Mr. Flower's wool from his residence, to Lowell, was $2.12½ by inland navigation, per hundred lbs. or $42.50 per ton. Compared with the cost of transporting the same value of any other product, this sum is a mere nothing, and shows how little the effect of distance from market affects the value of this article.

In seems then very probable, that the finer flocks of the east, will follow the course of the many that within the past year have moved to the west, and that their places will be supplied with coarser wooled flocks, which will at the same time supply the increasing demand in this country for mutton, and take the place of the Smyrna and coarse South American wools now imported from abroad. Great changes must, however, take place gradually, and the filling of the western prairies with fine wooled sheep, will require some years for its accomplishment. Still it will be done, and in the result may be traced another of the strong ties which will bind the east and the west—the strong tie of mutual self interest.

MR. WEBSTER'S FARM.

A correspondent of the N. Y. Com. Advertiser, has been giving some interesting details of his visit to Mr. Webster's farm, at Marshfield, and of the excellent order and system, as well as skill, with which every thing is there conducted. It appears that the Secretary of State is as much at home in farming, as in the halls of legislation; and that in the intervals of settling the affairs of nations, he has found time to attend to all the minute details of farm supervision. It must certainly be admitted an honorable fact, that many of the most distinguished statesmen of our country, have been among our best farmers. It is only necessary to mention Washington, Madison, Jackson, Webster, Clay, &c. as sufficient proof of this.

Mr. Webster, the past year, has made on his farm, about 400 tons of hay; several thousand bushels of roots; about a thousand bushels of corn; and other matters in proportion. He has a large number of excellent cattle of the best breeds, imported and raised on the farm, some seventy in the whole, and they well repay the attention they receive. His sheep are splendid. Selected by himself, in England, they are probably equal to any in the country. They are of the Leicester breed, and from one of them, Goliah, as it is called by the shepherd, 16 lbs. of wool have been taken at one shearing. His poultry yard is in keeping with the other parts of the establishment, containing the choicest kinds of fowls from every quarter of the globe. The farm contains about 1,300 acres, lying on the shore of the ocean, and the waves dash against the walls and throw their spray into his garden. There are about 300 acres of wood land, mostly planted by Mr. Webster, and the time is not distant, when the red deer will be as plentiful here, as it is in the wildest woodlands of the west. His mansion is surrounded with magnificent avenues of elms, and he still continues to plant, believing with Girard, "that it would be better to plant a tree to-day, though he were to die to-morrow."

We learn from Gov. Hill's "Visitor," that Marshfield is not the only farm possessed by Mr. Webster. He still retains the old family mansion and farm in New Hampshire, and though visiting it but seldom, it is kept in the best and most productive manner. His rooms, with an extensive library, and a bed, are reserved for his use, the rest of the mansion being occupied by his manager. We cannot but believe that Gen. Jackson at the Hermitage, and Mr. Webster at Marshfield, enjoy more real happiness and tranquility of mind, in the management of their farms, than while leading armies, or wielding the destiny of nations.

Columbia Floral and Horticultural Exhibition.—We owe our good friends at Hudson, an apology for having so long failed to notice their autumnal show, which was held at Hudson, the latter part of September. We intended to have been present, but the duties devolving on us in connection with the State Fair, prevented; and we are sure we lost a rich treat, for we are told by those who were present, that it was the handsomest and best arranged exhibition of Fruits and Flowers, they had ever witnessed. It was, says the Hudson Gazette, a truly splendid affair. There was a vast variety of fruits and flowers, displaying all the powers of human ingenuity, as well in the choice, as in the beautiful arrangement of the various materials of which the several pieces were composed.

Original Papers from Contributors.

FARMING IN WISKONSAN.

MESSRS. GAYLORD & TUCKER—Our soil and climate are well adapted to the CULTURE OF WHEAT, but the difference in the surface and climate here and at the east, made it necessary to adopt another course from that pursued there. We get a first rate crop, (perhaps the best, quality and quantity considered,) from the first breaking of the sward. The sod is turned over in June, from two to four inches deep, and then in the latter part of August or first of September, is dragged and backset, as we term it, or turned over again, and the wheat sowed, on 1¼ or 1½ bushels per acre. If sowed early, it covers the ground completely, and withstands the severest winters. It ripens earlier than the crop on old ground, and is generally rather plumper and cleaner, though it should not be cleaner, but it *is*, as there has been no opportunity for weeds to ripen and fill the ground. The crop when tolerably well put in, is an excellent one, on either opening, or prairie land; but after the first crop, some kind of protection seems necessary to insure a good crop on the prairie. It tillers out finely on old ground, but the soil is so mellow, that the surface is very smooth, and the snow not being deep it is blown off by the high winds, leaving the roots exposed to the action of the sun and frost. Hence on prairie, neither a summer fallow of stubble ground nor stubble ground itself, is very good for wheat. The most approved method of raising wheat on old ground, is to sow among corn as early as the last of August, and to cover it with a cultivator, and then gather the corn in baskets, and leave the stalks in the hill. They soon get broken down so as to admit the sun and air. The plants cover the ground, and are completely protected from the wind in the winter. As soon as the vegetation starts in the spring, the stalks are cut down and left on the ground. The corn is planted farther apart than is usual when the ground is intended for wheat. To be sure we lose our stalks for fodder, but that is not regarded.

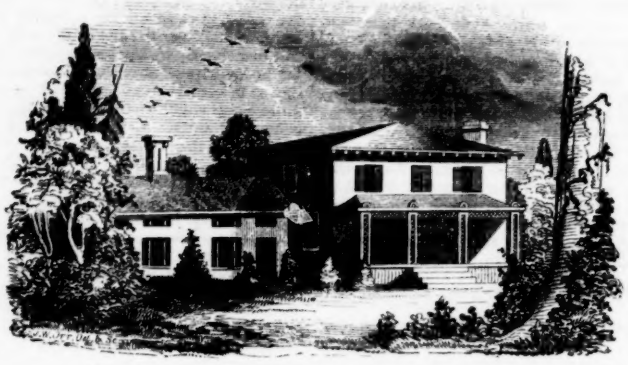
THE GRASSES.—Breaking up tame grass lands, has not as yet been tried here for wheat. It will probably succeed as well as the first breaking up, but the inhabitants get wild hay from the low lands, which answers very well. They do not seem to find any room to grow the cultivated grasses. We have sowed 10 or 12 acres of timothy —5 immediately after the first breaking—5 more after the second plowing, and 1½ on old ground. The first grew and covered the ground, but it was very hard, and the grass was light. It was cut twice, but the present season it was not worth cutting. Next year it will be sowed to wheat. The five on the second plowing, were thinly seeded, but produced a tolerable crop the first cutting; this year, that too, was nearly worthless. The last spoken of, was mowed this year for the first, and though the grass was rather thin, it was tall and heavy, with the longest heads I ever saw—some over 11 inches long. From the little experience I have had here, I should say that herds grass must be sowed very thick, on old land, deeply plowed, and then every year or two, at most, a top dressing of manure should be put on. Clover has been but partially tried in this section. It may not do very well on the prairie, but we have lands that will undoubted produce good clover.

SPRING CROPS.—For spring crops of all kinds, this country is very fine. Spring wheat is raised in abundance and with ease. It is a very sure crop, and does best after corn and roots; the difference between the two is hardly perceptible, though rather in favor of the latter. On good clean ground, after those crops, 20 and 30 bushels are an ordinary crop. Oats produce well—best after corn and wheat—though ours this year, were *very* smutty. They are the large Poland oats, I believe, and had as fine a growth as I ever saw. They were on corn stubble, but nearly a third smut. What is the reason? Is it the variety, or the ground? They were sowed 3 bushels to the acre, and grew very tall and stout. Corn does well here, and is in my opinion, the best crop of all to prepare land for any other. It does well after the grains, but it is *death* to it, if it be put after roots, especially ruta bagas. It will not do. Roots are easily raised here—grow large and rich—the only trouble is to prepare the ground properly. We plow three times before sowing. Our object is to let the seeds in the ground vegetate. If we did not, the weeds would choke them completely. They evidently exhaust the soil very much, but leave it mellow and fine for cultivation. Before wheat they are good, and I presume before oats, though I have not tried it as yet. The farmers here are paying some attention to raising sheep; though conveniences for manufacturing wool are as yet few. But the country is unquestionably well adapted for raising them. Very respectfully,

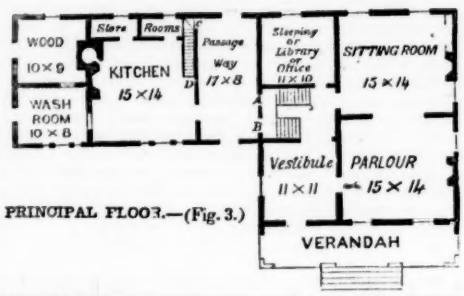
F. A. PHŒNIX.

Delavan, Walworth co. Wiskonsan, Nov. 19, 1842.

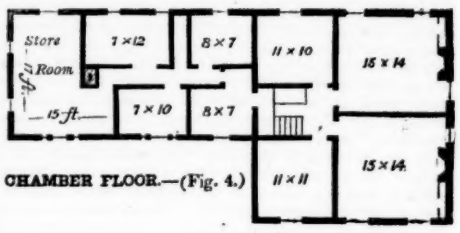
MESSRS. GAYLORD & TUCKER—I notice in the Dec. No. of the Cultivator, an article under the head of "Impure well water." Water passing through the "geodiferous lime rock" imbibes a portion of gas, very offensive to the smell, though not essentially injurious to health, and for which there is no convenient remedy. When it contains any considerable portion of gypsum, it is not only unpleasant, but to persons of feeble digestion, absolutely unhealthy. It also exerts an unfavorable influence upon certain animals, until accustomed to its use. Carbonate of lime is readily precipitated by boiling, and if a small piece of soda be placed in the tea kettle or vessel containing water for domestic use, the gypsum will be precipitated also. CHEMIST.



ELEVATION.—(Fig. 2.)



PRINCIPAL FLOOR.—(Fig. 3.)



CHAMBER FLOOR.—(Fig. 4.)

DESIGN FOR A GENTEEL FARM HOUSE.

See Figs. 2, 3, and 4.

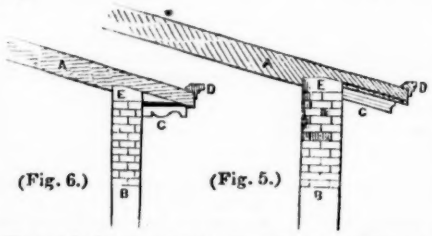
MESSRS. GAYLORD & TUCKER—I submit to yourselves and readers, the accompanying design for a genteel Farm House of moderate pretensions and cost. It is gratifying that this subject is at last receiving that attention, in part at least, which its importance demands.

In past years, the idea of a farmer's dwelling with any pretensions to taste, carried with it to his mind, extravagance and ruin; and this false notion was often fostered by the mechanic, who while able to put his work together in a substantial manner, yet never had an idea of design other than what his father and father's father practiced in days of yore.

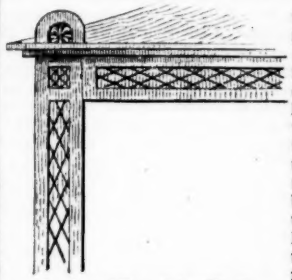
The result of this has been, in very many cases, that our affluent and intelligent agriculturist inhabits one of those "shingle palaces" so inconvenient in their internal arrangement and so absurd in their appearance—the just object of ridicule. Many, very many of our beautiful landscapes are marred and deformed by these *wooden wens* on the fair face of nature. And these uncouth edifices were generally erected at double the cost of a more beautiful and convenient dwelling.

Another prevalent absurdity is the choice of material; for even in districts where good stone or brick are abundant, how often is the glaring white clapboard substituted therefor, than which nothing can be worse as regards taste or economy. A radical change in the rural architecture of our country is "a consummation devoutly to be wished."

This design is for a house 28 by 30 feet; first story 8½ feet high, chamber story 7½ feet high, with a wing. The principal floor of main building is about 3 feet above that of wing. The dairy rooms I would place in the basement of main house, occupying all the area under the parlor and sitting room. For butter making, this is altogether preferable to having the dairy rooms above ground, being cooler and less liable to sudden changes in temperature. For this I have the judgment of some of our best Orange County butter makers. A small private cellar under the library, and another under the vestibule is intended. The root cellar I would construct under the wing. The passage way in the wing may be used as an eating hall, except in very cold weather. The door A. (fig. 3,) opens upon the stair which descends into the dairy rooms and cellars adjoining. Door B. opens upon the landing, from which four or five steps conduct to the main floor. Door C. opens upon stairs leading to sleeping apartments of the farm servants, and door D. to stairs descending to vegetable cellar. A door on the landing of principal stairs will connect with attic of wing. If the small room marked *office*, is used for that purpose, it would be proper to have a door opening from it into passage way in wing.



The roof of the main building, I would recommend to be of tin or zinc, for many reasons; shingles however may be used, (except in the gutter at the eve,) where they are much cheaper or more abundant. The roof of this building it will be seen, projects pretty boldly about 2 feet over the line of the exterior wall. This not only secures a good, dry, and well sheltered house, but it gives the dwelling at once something of a superior air. This construction of the roof will be easily understood by mechanics, as it is formed by employing rafters of sufficient length to project 20 or 22 inches over the face of the wall B. These may be ceiled on the under side, so as to show the slope of the rafter, (fig. 5.) or the finish may be made to show a flat ceiling under the projection, as in fig. 6. In either case the appearance of support is increased by adding plain brackets (C,) about 4 by 5 inches and nearly as deep as the projection of the roof.



Section of Verandah.—Fig. 7.

The roof of the wing should project rather less, and 12 or 14 inches will be sufficient, and the brackets may be omitted here. The gutter, it will be perceived, is formed at the edge of the roof, and in this, tin or zinc had better be used. To carry out this building properly, working plans, details, and a full specification might be necessary, which can be furnished upon application. The estimated cost of this building is $2,000 in Orange county, either of stone or brick, probably a little less of wood. In other places it would be more or less, according to the price of materials. Yours, with esteem,

Newburgh, Nov. 1, 1842. T. M. NIVEN.

PREMIUM CROPS.

THE following premiums on field crops, were awarded by the Wayne County Agricultural Society, at its meeting, 11 mo. 15, 1842:

To C. S. Button, for the best crop of wheat, 5 acres 11 rods, yielding 151½ bushels or about 30 bushels to the acre, $8,00.

To C. S. Button, for the best crop of corn, 2 acres, 76 rods, at the rate of 99 bushels, 6 quarts per acre, $5,00.

To Marvin Roundy, for the best crop of oats, 4 2-3 acres, 312 bushels, or about 67 bushels per acre, $4,00.

To D. & G. W. Kenyon, for the best crop of potatoes, 72 rods, 169½ bushels, or about 376 bushels per acre, $3,00.

To Rocher & Miller, for the best crop of ruta baga, half an acre, 549 bushels, or 1098 bushels per acre, $3,00.

The following is an abstract of the statements of the competitors:

Dr. Button's wheat was the white flint—the previous crop was corn, manured 20 loads to the acre—the ground was prepared by splitting the hills, harrowing down, and plowing once—8½ bushels were sown the first week in October, and harrowed once each way.

Dr. Button's corn was the Dutton—the previous crop peas and oats—the ground plowed twice in May, and at each plowing manured with 12 loads coarse manure—harrowed and planted the 12th of May, in rows 2 feet 8 inches, by 2 feet—12 to 16 seeds in a hill, afterwards thinned to 3 or 4 plants in the hill—after culture with cultivator and cutting out weeds twice.

M. Roundy's oats were after corn, unmanured—10 bushels of seed sown.

D. & G. W. Kenyon's potatoes were a mixture, most-

ly a red variety—the ground covered with manure, plowed in, and planted in drills 3½ feet apart—the potatoes cut in 3 pieces, and planted one foot apart in the drill.

Rocher & Miller's ruta bagas—ground a clover sod, mowed last year, plowed about the first of May, well harrowed, sheep manure applied at the rate of about 24 loads to the acre—about the first of June, plowed and harrowed—planted 8th of June, in drills 20 inches apart, and 8 to 16 inches in the drill—hoed twice, and harvested Nov. 5. J. J. THOMAS, *Cor. Sec'y.*

ORANGE COUNTY.—The first premiums of the Orange Co. Ag. Society, for Corn and Oats, were awarded to F. J. BETTS, Esq. of Newburgh—the corn producing 205¼ bushels of ears to the acre, and the oats 77 bushels. Of the cultivation of these crops, Mr. Betts, in a letter to the editors of the Cultivator, says:

"You correctly suppose that my corn was 205¼ bushels of *ears* per acre: but that was the average yield of the whole field, containing 4 5-8 acres.

"The corn is a crop of Dutton and the large. Connecticut yellow corn, obtained by planting the two in the same hills; the seed thus obtained, produces a very handsome ear, which is earlier than the old fashioned corn, and yields well, as the product of my field shows. The whole crop is very handsome, and scarce an ear which is not fit for seed.

"The field upon which it grew, was a tough green sward, plowed in the early part of February last, (when the ground was free from frost,) and manured with fifteen wagon loads per acre, of a compost of *muck and barn yard manure*, in about equal parts; the muck having been spread over the surface of the barn yard during the winter. In planting, the corn was covered with half a shovel full of the same compost, *instead of earth*, and two bushels of salt per acre was spread broadcast over the field, immediately before planting; the field was then cross plowed, and the corn planted about 3½ feet apart; it was twice plowed and hoed, and had the cultivator run through it once; it was very slightly hilled, and had about an average of four stalks left in each hill.

"The oats were raised upon a field cultivated the year before in the same way, except that about *twelve* loads of manure per acre, were used, instead of *fifteen*. The oats were sowed as early as the ground could be got in order for them, at the rate of *three* bushels per acre."

IMPORTATION OF WOOL, &c.

MESSRS. EDITORS—Among many of your farming readers, are wool growers, who have received too favorable an impression respecting the advantages they are to receive from the present protective tariff bill. Having the full Report from the Secretary of the Treasury, communicating the statement of the Commerce of the United States for the year ending Sept. 30, 1841, I will extract the statement of imports of Wool in that year. All wool, not exceeding 8 cents per pound at the country or port purchased, was admitted into the United States free of duty. I will name the place from whence imported, and the quantity in pounds, and value in dollars:

Whence Imported.	*Pounds.*	*Value.*
Danish West Indies,	89,910	$7,115
Dutch West Indies,	19,099	1,190
England,	228,366	17,188
Gibraltar,	72,466	4,328
British West Indies,	80	4
British N. American Colonies,	7,160	574
France on the Mediterranean,	213,820	14,720
Spain on the Mediterranean,	7,894	570
Italy,	194,414	13,301
Austrian Adriatic ports,	44,864	3,399
Turkey,	2,646,289	186,010
Morocco,	455,573	31,628
Texas,	310	22
Mexico,	287,129	21,830
New Grenada,	197	16
Venezuela,	684	50
Brazil,	118,712	8,228
Cisplatine Republic,	655,879	35,811
Argentine Republic,	8,870,799	531,025
Chili,	458,846	31,124
Peru,	21,461	1,477
Africa generally,	60,695	4,706
Patagonia,	65,747	3,995
	14,409,764	$981,281

Whole amount of wool admitted duty free, is fourteen millions four hundred and nine thousand seven hundred and sixty-four pounds, valued at only nine hundred eighty-one thousand two hundred and eighty-one dollars, which is about six and a half cents per pound, imported from twenty-three differents ports and countries, more than one-half of which, from one Republic in South America.

All wool unmanufactured, exceeding eight cents per lb. imported in the same year, is only 596,646 lbs., valued at $173,672, which is over thirty cents per lb. value at the place from whence exported. 278,415 pounds came from England. These are facts that are not without interest to the wool grower, and are worthy of reflection.

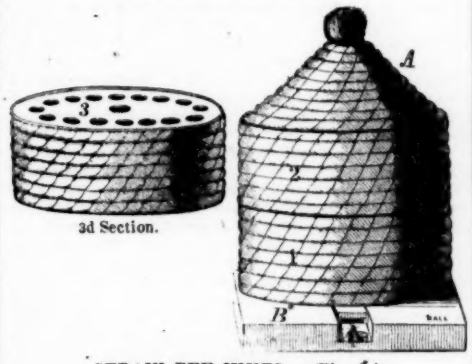
Although we had but little over half a million of lbs. of fine wool, paying ad valorem duties, imported last year, our own wool has been a drug in market. Then where is the competition? Is it not in the fourteen and a half millions of coarse wool admitted duty free? If this wool is manufactured in the United States, and put upon our backs, does it not take the place of so many yards of cloth that might be manufactured from our wool? Some say that it is very coarse, and is only used among the negroes; but that is a mistake. We have machinery in Vermont, that manufactures large quantities of this wool into cloth—a very good article—and is worn by *the whites* of this state. Another will tell you that one of the glorious acts of the last Congress, was to lay a duty on all cheap wools. Well we will admit that on unmanufactured wool, the value whereof, at the last port or place from whence exported to the United States, shall be seven cents or under, per pound, there shall be levied a duty of five per centum ad valorem; that is, if sixteen pounds of wool shall cost in South America, one dollar, including all costs and charges except insurance; then on this sixteen pounds of wool is levied five cents, *or about three and a half mills per pound.*

These young Republics of South America, and many other countries which grow this cheap wool, are yet in their infancy in sheep husbandry. We shall undoubtedly receive greater and increasing supplies for many years to come, from these ports. On account of the small duty levied, they will be obliged to accept a trifle less for their wool, which they will be better able to do as they improve in the art of sheep husbandry.

It is the "scarcity of gold that makes it dear." The same adage may apply to wool. If our markets are flooded with the raw material, there will be no need of the manufacturer paying from forty to sixty cents per pound. Such improved inventions have been introduced in machinery, that cloths can be manufactured from these coarse wools, such as the laboring man need not be ashamed of.

If wool remains near the low ebb that it has now arrived at, the prospects of a ready market for the wheat of the western farmers with our New England farmers and mechanics, as heretofore, cannot be so great nor flattering; for we shall be obliged to consume more brown bread, and endeavor to raise some wheat, which we can do almost wholly within ourselves.

Weybridge, Vt. 1842. S. W. JEWETT.



3d Section.

STRAW BEE HIVES.—(Fig. 8.)

MESSRS. GAYLORD & TUCKER—This cut (see fig. 8,) is a perspective drawing of my sixth class of Bee Hives. This is a swarming hive, made of straw, in sections, with an absorbing cap placed over the top, and a canal bottom board underneath, represented here as standing on a frame, made like a common table frame, 18 inches high, before the leaf is put on. The 3d section, marked 3, which may always be used as a chamber in the summer season for boxes, globes, tumblers, &c. is taken off in October, and the absorbing cap marked A, supplies its place for wintering the bees, and is again removed early in the spring, to give place for the third section; which may be used as a chamber, or it may be filled with honey, as most agreeable to the owner. Hives, made of boards, possessing principles (in some respects,) similar to this, have been used, long since, in Europe and here; but the true principles of ventilation, as well as the exhalations of the bees, were not well understood, and the hives have gone out of use in all cases, after a trial of them a few years. Even the great French Apiarian who invented it, lost his whole stock except one hive, by its use, and this he gave to his son: but the son would use none of them. This gentlemen, M. De Gelieu, wrote an excellent treatise on bees, which I wish was more generally read. But to the hive; the sections should be made as near alike as can be. Each section should hold a little more than half a bushel. The straw is confined to the top board by sewing the strands of straw with strings made of bark, basket stuff, or coarse twine, until the section is finished. Then the section is turned top down, and wood pins are drove down through every strand to the top board, and cut off level with the bottom. These pins should be within 4 or 5 inches of each other, all around the section, so as to strengthen the hive by keeping the straw perfectly in place, and prevent the hive from settling out of good shape in any place, when brought into use. The top board of each section should have at least 12 two inch holes made by a center bit, to facilitate uniformity of animal, or rather insect heat, in all the sections, to promote the growth and bring to perfection the young broods in the summer, and likewise afford the most favorable opportunity for the vapor of the bees, caused by their breath and exhalations, to rise into the cap, and there become absorbed by the straw, and dissipated by the surrounding atmosphere, which greatly prevents the accumulation of frost and ice in the hive: thus preventing the death of the bees by freezing.

I am aware that some objections may be urged against the use of straw hives, especially as they afford a ready harbor for moths and other insects, inimical to bees; but this objection no longer exists, for it is now well known that the eggs of moths will not germinate where whitewash is used. It is believed that the caustic nature of lime destroys the principle of life in the eggs of all insects; and straw hives that are well made, are easily whitewashed.

Much may be said in praise of the common straw hive. They are greater non-conductors of heat and cold, than any wood hives, and are much better for wintering bees in than any wood swarmers; the absorbing qualities of the straw prevents frost and ice from being formed in so great quantities in the hive in the winter, and their liability to harbor mice is completely obviated by the use of the canal bottom board, a description of which has already been given in the Cultivator, and answers all the expectations I then anticipated, and more than I expected at that time. In trying the experiment last winter, I found in warm turns of weather my bees sallied out of my hives, and many were lost by falling on the ground, and never returned; but not so with any of my hives that rested on the canal bottom boards. It is found that the light enters the hive in so indirect a manner, that all there is in the interior of the hive is but twilight, and the bees remain perfectly quiet until they are so affected by the warm atmosphere that they sally out into air, so warm as to enable them to return to their hive without loss of many of their companions. But to the hive again. When the hive is made in sections like this, it needs no sticks, as each section is only six inches deep besides the top board, and 18 or 20 inches in diameter. In new countries, where lumber is scarce and expensive, the top board may be made of bark pealed from large trees, pressed and dried, and the strands may be made of prairie grass. In constructing hives of any sort, the builder's attention should be directed to two points which are believed to be of the highest importance to the apiary. First. Bees should not be compelled to take any unnecessary steps after they enter the hive, to relieve themselves of their burthen. How can a man do business to advantage with a heavy load, and grope in darkness, wandering through a dense crowd, winding his way to the fourth story by the sense of touch only, constantly meeting others stronger than himself returning, and pushing him back? Second. The hive should be so constructed as to enable the apiarian to preserve the young broods from a chill in cold turns of weather in the spring months, which has been considered one principal cause of complaint among bee masters, that their bees do not swarm. As I have once published an article of some length on this subject, I will only remark here, that the principal cause of this complaint this year, has originated from causes perfectly new to me; a fact that I never discovered until this season, 1842. It is this: blossoms this season, have yielded so little pollen, that the bees were unable to supply the young with a sufficient quantity of new bread to hasten along the young broods so as to produce swarms, until the season was too far advanced for the bees to form new colonies with safety. It is now believed that bees never feed their young with old bread, at any time when they can traverse the fields. But as a full illustration of this subject will require an article too long for this place, I only remark that as this hive is subtended, it is used different from other hives.

When the combs in the first and second section, get loaded with bread and the cocoons of young bees, so as to interrupt in the least, the perfecting the young, the hive is raised up from the bottom board, and the 3d section is placed where the first section stood; as this is done early in the spring, the bees will replenish themselves with new brood comb. This may be done as often as desirable, at the same time the section coming on top may be emptied of its contents and used as a chamber for boxes, or as a receptacle for honey. I have four more classes of hives, which I intend to bring before the public in due time, making ten classes in all, most of which may be converted into non-swarmers when desirable, and reversed to swarmers again at pleasure.

Respectfully yours, JOHN M. WEEKS.

West Farms, near Middlebury, Vt. Oct. 8, 1842.

TO WESTERN EMIGRANTS.

Another "TRIP TO MILL."—Fatal effects of venturing to cross an unsettled Prairie in a stormy night.

EDITORS OF THE CULTIVATOR—How often I have been asked by my eastern friends, whether my account of the "*first trip to mill,*" published in your paper in June, 1841, was "founded on fact." These inquiries show how little you that dwell in cities and densely populated places, know of the hardships and perils of life that the pioneer endures. "How little do we know how to appreciate trifles until placed in a trying situation."

In that article, I spoke of the danger of life to the teamster, who attempted the perilous passage of the prairie in a cold winter night. I also spoke of the beautiful weather of November, usual to this region. Just such weather was the first part of the present month, but what a change suddenly came over the face of nature—a change that brought desolation into the cabin of an afflicted emigrant.

The reader of the narrative I am about to give, will undoubtedly say that there was a great lack of prudence and forethought in the emigrant, and it is upon that point that I wish him to be advised, and not attempt to buy his knowledge with an experiment that may cost him his life.

The 16th of November was a delightful sunny day. "I think," says Mr. W., (one of my *neighbors*, for he only lived a dozen miles off,) to his wife, "that I will go to mill to-day, it is so pleasant." "I wish then you would

go down the river, for they make the best flour there, and as wheat is only worth three shillings a bushel, we can afford to eat good flour."

The wagon was loaded, and away he went, under the full expectation of being again by his own fireside on the evening of the next day—the distance being upwards of 40 miles.

He was a stout robust man, in the prime of life, inured to fatigue, and so fearless of cold, and so deceived by the appearance of the weather, that he left home thinly clad, and totally unprepared to resist the rigor of the storm that came on next day.

On the next afternoon he started back with the intention of driving home that night. Just at sundown, he stopped to warm at a house, from which to the next, it was 8 or 10 miles across a bleak prairie, without a bush to shelter or tree to guide. His course was east. Here a most furious southwest snow storm came upon him. Who can picture the horrors of that night? Little did the wife and children of the doomed emigrant think, as they gathered around their warm hearth, what the husband and father was then suffering. During all the next day, the storm raged with unabated violence. The cold was intense, and the snow filled the air so as to veil all objects in obscurity.

But they did not look for "the return from mill" on this day, but towards the close of the next, eyes were anxiously strained in that direction; yet the night passed, and he came not. The next was the sabbath—usually a day of rest and thanksgiving in that household. Doubt not, many an anxious prayer went up for the safe return of their best and absent friend.

Night closed upon saddened hearts, full of fearful forebodings. Can you fancy the horrors that haunted the pillow of the good wife all that night. See how she starts at every sound. Do you remember I told you in the article I have before alluded to, how remarkably quick my ear had become. Fancy the same of hers. How anxiously she listened for the cheering sound of that well known voice—how the childlike inquiry of the early morning, grated upon her ear—"has father come yet—why, what *has* become of him?"

While a consultation is holding during the day, as to "what shall we do;" "hadn't we better go after father," a noise is heard at the door. "'Tis he—there's the horses." No—a stranger enters. He inquires "is Mr. W. at home?" "No." "Hain't he been back from mill yet?" "No! and do tell us where did you get his horses?" They came up to my house yesterday morning, with halters and collars on, and I thought they had got away from him, and perhaps he had come on home."

"Oh! then he has perished in the storm." "No, for then the horses would still have been attached to the wagon."

Ah! thou blessed comforter, hope, that never lets the heart sink whilst thou in thy faintest form holds forth a single ray. There was dread fear, but hope prevailed, until a messenger, with utmost speed, had learned when he left the mill, and traced him up until the spot was reached where he was last seen alive. Then hope forever fled.

On Tuesday, the fifth day after he was lost, a strong force of men and boys, dogs and horses, were spread over the prairie, searching in every direction, between the groves, near the road he should have passed. Towards night, some of the foremost of those who had spread away to the north some 6 or 8 miles, raise a shout, and away they course at top of speed, toward a small black speck seen in the snow. 'Tis the lost man's wagon. He had missed his road, and after wandering, no one knows where or how, had fallen into another road leading to the north, and upwards of 20 miles between houses. Here lay the harness upon the ground, cut from the horses. The reason why he had been compelled to stop, was plain. The bolt that held the doubletree on the wagon, was lost. The bags had been set up in the wagon to break the face of the storm, and a bed made of bran, but no one occupied it now.

Experience and necessity teaches the pioneer of the wilderness to discover tracks and "signs," where an unaccustomed eye would fail. 'Twas such an eye that got upon the lost man's trail and followed it near eight miles, where he had pitched forward upon his face—the strong man struggling with the stronger one of death—can you doubt which prevailed?

Oh how sad, how solemn, how different was this return, from that one before depicted to you, from "the first trip to mill." Then, all was joy and gladness in the emigrant's cabin; now, the wail of wo is poured out in sorrow over the rigid frozen corse, whose next and only trip will be to the dark and silent grave.

Reader! the motto of this paper is, "to improve the soil as well the mind!" I have given you a subject to improve upon. May you ever be prepared with care and prudent foresight, to guard against the storms that are likely to beset your path through life; and while you gather around your winter firesides, musing over this melancholy tale, let your hearts soften towards those who are buffeting the adverse and chilling blasts of life, and stretch forth the helping hand ere they fall into that cold embrace from which no human hand can warm them into life again.

I hope many of you have not forgotten that old friend of yours of the Western Prairies, and who you will recognise, when I tell you that I am still the same

SOLON ROBINSON.

Lake C. H. Ia. Nov. 25, 1842.

"Loss of manure, is loss of crops."

AGRICULTURE OF VIRGINIA.

Farming of Mr. WILLIAM WEAVER, *of Rockbridge Co. Virginic.**

Mr. William Weaver, of this county, one of the most judicious practical farmers I have ever known, has for several years past, been cultivating a portion of his extensive estate, with distinguished success, upon a system entirely novel in this section of country—the Valley of Virginia—a brief outline of which may not be unacceptable to some of your readers.

The traveler from Lynchburg to Lexington, up the picturesque and romantic valleys of the James and North rivers, cannot fail, if he will but lift up his eyes as he approaches the mouth of Buffalo, about 9 miles from the latter place, to observe, at the distance of two or three miles up the river, a cluster of precipitous hills—the outposts, as it were, of the Blue Ridge—proudly rearing their green and rounded summits above the adjacent valleys, and apparently covered to their very tops, by the hand of man, with the richest and most luxuriant vegetation. These steep and rough hills, most appropriately designated by Mr. Weaver, as the "Highland Farm," against which the North river dashes its foaming torrent, and which slope in every direction from their summits to their base, presenting angles of from twenty to fifty degrees, constitute the land in question.

About ten or twelve years ago, Mr. Weaver purchas this farm, now embracing upwards of 800 acres, in several distinct tracts, at an average price of $2 an acre, principally for the purpose of procuring the wood, with which it was then covered, with the exception of about 100 acres of cleared and exhausted land, to supply his iron establishment with coal. The native growth consisted of oak, hickory and dogwood, with large pines interspersed. The soil is a red gravel, strongly dashed with slate, reposing on limestone foundation. So unpromising an appearance did this land present for agricultural purposes, that when Mr. Weaver told his neighbors he intended to make a corn farm of these poor and steep hills, a laugh of derision was the only encouragement he received.

As the clearing progressed, Mr. Weaver divided the cleared land into four fields, one of 100 acres for standing pasture, and three of about 120 acres each for cultivation. The first field of new ground was broken up early in the spring, with McCormick plows, drawn by two mules each, and cultivated in corn. The crop did not exceed an average of fifteen bushels to the acre. In the fall, the field was seeded in wheat, upon which, late in the winter, the usual quantity of clover seed, and half a bushel of plaster, were sown to the acre. After the wheat was removed at harvest, the stubble was gleaned by the stock of hogs. Very early next spring, an additional half bushel of plaster was sown to the acre over the whole field. During the spring, summer and fall, not a single animal of any kind whatever, was permitted to invade the clover field, nor was any clover cut, except a very small quantity on the most luxuriant spots, for the use of the mules while at work on the farm. The next winter, however, the stock of hogs was kept in the field, which was plowed up early in the spring, and again planted in corn. In the fall it was seeded with wheat, and in the winter sown with clover and plaster. The other fields, as they came successively into cultivation, were treated precisely in the same manner, with the exception of the standing pasture, which has never been plowed up since the first course of crops, and of the hundred acres of exhausted land, above spoken of, which, being too poor to produce corn, was sown first with oats, and then with rye, clover and plaster, when it took its course in the regular rotation.

Now mark the result of this system of cultivation. The crops of corn on these poor hills, have for several years past, averaged about forty bushels to the acre, while this year s crop, on a field of 130 acres, is pronounced by competent judges, to be the best in the county, on either bottom or upland. The entire field, it is supposed, will average upwards of 40 bushels to the acre, while many contiguous acres can be found which will yield at least 60 bushels.† I have heard some of the most intelligent neighbors express the opinion, that it was the best field of corn they ever saw. The crops of wheat succeeding corn, though improving every year with the progressive improvement of the land, have never been heavy. The average may probably be set down at from eight to fifteen bushels, the crops having been of late years very materially injured by rust. Mr. Weaver's object is corn, of which immense quantities are consumed by his iron establishment. Were wheat his staple crop, he would sow it upon a clover ley.

Mr. Weaver informs me that clover did not succeed well on his new ground until it had been well cleansed by his second course of crops. It is now generally very heavy. His fields were at first much infested with sorrel, which has at length been almost entirely extirpated. Mr. Weaver regards it as all-important to the success of his clover, that it should be plastered, at the rate of half a bushel to the acre, about the time of sowing the seed. He sometimes even strews plaster on his wheat in December or January, previously to sowing his clover seed. He attributes the rapid improvement of his soil to the shelter afforded to his land by the thick growth of standing clover, as well as to the heavy coat of vegetable matter which it enables him to plow under. If clover is sown for the improvement of the soil, he regards it as a great error to graze it at all. He contends that his standing pastures, which in a few years are covered with white clover and green sward, yield him more and better pasturage for his cattle than his clover fields would afford. Consequently, he never plows them up.

No lime has ever been applied to this land, nor any manure, except a few loads annually from the mule stable to the poorest spots. The improvement has been effected exclusively by the use of clover and plaster. The land, as steep as it is, does not wash; a result which Mr. Weaver attributes to his deep plowing, and to the large quantity of long vegetable matter the soil contains, which binds it together, and at the same time keeps it loose and porous, enabling it to absorb and retain a large quantity of water.

Mr. Weaver lays great stress on applying plaster to his clover fields, either in the winter, or very early in the spring, that it may be thoroughly dissolved by the early rains. He attributes much of the benefit he has derived from the use of plaster to his practice in this respect, in which he says he is sustained by Prof. Liebig. Plaster, it is well known, absorbs a large quantity of water, and does not operate on growing plants until it is dissolved.

Mr. Weaver's mode of cultivating corn is as follows: In the month of December he sows one bushel of plaster per acre upon his clover field designed the next year for corn. He prefers this mode to plastering his corn in the hill, as more beneficial to the corn and to the land. About the 1st of March, and not earlier, for Mr. Weaver prefers spring to winter plowing, (being more recent, it leaves his land looser and in better order for a crop,) he commences breaking up his corn ground, as deeply as possible, with McCormick plows, drawn by two stout and fat mules, running around his hills, so as to throw all the furrows down hill. About the 1st of April he lays off his ground in rows, in the same direction, 4½ feet apart, and drills his corn very thick, as he never replants. His usual allowance is a bushel of seed to five acres. With this quantity of seed he has never failed, notwithstanding the depredations of the grub worm, &c. in obtaining an abundant stand of plants. He commences plowing his corn with the ordinary shovel plow, as soon as he has finished planting, by which time his first planting is generally well up. He plows and hoes twice, thinning at the first hoeing to the distance of about 2½ feet in the row, leaving from two to three plants at a station. This is all the work his corn ever gets, and he always lays it by before harvest. He endeavors to finish working his corn as early as practicable, in order to injure the roots as little as possible. With this cultivation, his corn field, under his system of improvement, is kept throughout the season both clean and loose—the great points in the management of the corn crop.

This year, Mr. Weaver has 200 acres in corn. He commenced plowing the 1st of March, with six McCormick plows, drawn by two stout mules each; and, with the assistance of his overseer and six additional hands, he finished planting the whole 200 acres by the 7th of May, having in the meantime, with the same force, broup and seeded 90 acres of oats. Since planting, the whole 200 acres of corn have been cultivated by twelve hands, six plowmen, and six hoe hands, and six mules, and was laid by at harvest, about the 1st of July. Seventy acres of the corn, on the home farm, were plowed and hoed only once, the corn having been previously harrowed in the row with heavy two horse harrows. This field, which was a clover ley, will probably yield about 40 bushels to the acre. Mr. Weaver confidently estimates his entire crop of corn this year, at not less than eight thousand bushels. His 90 acres of oats were supposed to average between 40 and 50 bushels to the acre—making, with his corn, an aggregate crop of twelve thousand bushels of grain, as the product of the labor of thirteen hands, with the above mentioned team, for the brief period of four months. This is what I would call very energetic and successful farming. Is it excelled, or even equaled, by any other farmer in the United States, under any thing like similar circumstances?

Mr. Weaver has a field of 40 acres on his home farm, which he cultivates for two successive years in wheat, and two in clover for hay and seed. His first wheat crop, on the clover ley, has averaged, by actual measurement, thirty-six bushels to the acre, weighing 60 lbs. to the bushel. The second crop is never as heavy as the first. He has frequently made two hundred bar-

---

* This article originally appeared in the *Farmers' Register* of September last. An amended copy has been sent us, with a request that it might "be published in the Cultivator, to show our Yankee friends that there are some good farmers in the South,"—a request with which we cheerfully comply.

† Since the preceding article was written, Mr. Weaver has ascertained, by actual measurement, the product of three several acres, in different parts of the field.

No. 1, on the south side of the field, adjoining wood land, by which the corn was shaded and considerably injured, yielded *fifty-two* bushels and a fraction to the acre.

No. 2, on the extreme northern side of the field, also overshadowed and injured by timber, yielded *sixty-three* bushels and a fraction to the acre.

No. 3, on the highest point of the field on a direct line from from Nos. 1 and 2, yielded *seventy-one* bushels and a fraction to the acre. When I say 'bushels,' I mean of course, bushels of *shelled corn*, not of ears. The corn, in each lot, weighed 56 lbs. to the bushel.

The acres measured, were not the best in the field, but about a fair average, as Mr. Weaver supposes, of 100 acres of the corn—the remaining 30 acres being considerably inferior. Mr. Weaver is perfectly confident that the entire field of 130 acres will average at least fifty bushels to the acre.

I will only add that the land and corn were both measured with all possible accuracy, under Mr. Weaver's personal superintendence. Why cannot every farmer in Rockbridge, go and do likewise?

rels of flour from his wheat crop on these forty acres—being an average of twenty-five bushels of wheat to the acre. Mr. Weaver does not object to taking several successive crops of corn or wheat from the same land, *provided it is rich*. He contends that it is necessary to take two successive crops of wheat from his clover field, in order to cleanse and pulverize it sufficiently to secure a good stand of clover. It should be stated that considerable quantities of manure from Mr. Weaver's barn and stables are applied to this field, on the young clover. Mr. Weaver uses all his manure as a top dressing to his grass lands and clover lots. He disapproves the practice of plowing under manure.

Mr. Weaver's standing pastures are the finest I ever saw, consisting of a most luxuriant growth of white clover and green sward. The only objection to them is, that they are too much infested with "rich weed," as it is termed, and thistles, which Mr. Weaver has not had time this year to destroy, in consequence of his unusually heavy crops, and the destruction of his iron establishment, saw mill, and a long line of fence, by the July freshet. He fattens upon them a number of bullocks, besides keeping a large dairy stock of very pretty cattle.

Mr. Weaver's stock of every kind, horses, of which he has very few, mules, cattle and hogs, are of a very fine quality, and are all kept constantly fat—the most economical and profitable mode, as Mr. Weaver contends, of keeping stock. He crushes all his corn for stock feeding in the ear, and he considers his crushing machine the most profitable upon his estate.

Rockbridge co. Va. Aug. 29, 1842. PLOUGHBOY.

IMPLEMENTS OF HUSBANDRY.—No. I.

OUR object of the New-York State Agricultural Society, is to collect and diffuse information on the most important and interesting subjects connected with agriculture. How far it has succeeded in this, must be obvious to all who have noticed its progress for the last two years. By its public meetings it draws together men from different sections of the state; by its premiums it induces them to bring what they suppose of peculiar excellence; it invites them to give a history of their successful and unsuccessful efforts. In its exhibitions, an animal that is considered excellent by one, is placed by the side of another that is deemed superior. An opportunity is offered for comparison, inquiry is excited, and thus all may judge for themselves, which, in their estimation, possesses the fairest claims to preference.

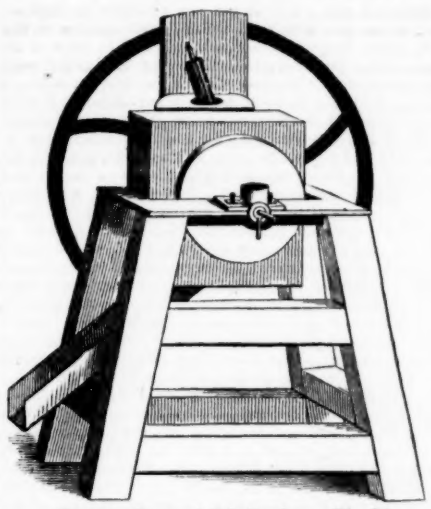
The same is true in respect to implements of husbandry. Few employments make a greater demand upon the physical powers than farming. The call, therefore, for improvements of skill are in as great demand in this as they ever will be in any other employment. In no business, however, has the head done so little, and left the hands so much to perform. The head has not, however, been slower in invention than the disposition to adopt the improvements which have been made. Before the introduction of Agricultural papers, in districts at no great remove, implements of husbandry, possessing great and distinct advantages above those in common use, were possessed, the employment of which, if not the knowledge of their existence, was confined to very limited circles. Prejudice may have been among the causes; ignorance that better were in use, however, was the most general.

Among the recent improvements of the day, in agricultural machinery, may be classed the corn and cob crusher, worked by hand or other power. Heretofore it was necessary to carry our corn to mill, which in many sections of the country was several miles distant, and besides paying toll, nine times out of ten the grist would have to be left, and another jaunt be made for it; which taking into account the toll, and time spent with a team in conveying it to and from the mill, I am not much surprised that the practice of grinding corn in the ear, has not been more generally adopted. To economise and lighten labor is an object worthy the attention of every farmer.

As to the value of corn and cob ground together for feed for animals, it is conceded, I believe, by all who have given it a fair trial. From the many evidences of the nutriment contained in the corn cob, the one made a few years ago by Mr. Minor, of Virginia, is decisive. On distillation of five bushels of cob meal, Mr. M. procured four gallons of spirit. He also found other nutritive matter than the saccharine which is converted into alcohol, as mucilage and oils.

"But besides the actual economy," says Mr. Minor, in the American Farmer, who had several years experience, "there is another advantage in this way of feeding corn, which ought to engage the attention of every farmer. It is notoriously true, that the unground grain of corn, is heating to the stomach of all animals, and of difficult digestion, producing cholic, and other inflammatory disorders, particularly in horses. They are deprived of the benefits derived from the stimulus of distension, (so necessary to the proper health of all animals,) by being unable to eat a sufficient bulk to produce it before they become gorged." For hogs, corn and cob meal is much improved by scalding; and by boiling with vegetables of any kind, and yet more by a partial fermentation.

With the machines I am about to describe, we have the means of crushing and grinding corn and cob on our own premises, either with hand, horse or water power. And first in order, will be the one exhibited at our Fair in Sept. last, by Mr. Obed Hussey, of Baltimore, Md., to which was awarded the Society's first premium.



(Hussey's Corn and Cob Crusher.—Fig. 9.)

This machine, of which fig. 9 is a pictorial representation, occupies about 3 feet square on the floor, and weighs about 275 lbs. and is calculated for horse or water power. The band pully is 15 inches in diameter, a size intended to reduce the motion sufficiently, when put in place of the thresher and driver by the same band, and to do quick work will require about 400 revolutions per minute; but less will answer. "It is capable of reducing," says Mr. Hussey, "with two to four horses, from six to ten bushels of corn and cob per hour, and it has ground six bushels per hour with one horse, but he was a strong and powerful animal." The corn is fed into a tube, one ear at a time, with the hand, the feeding graduated by the driving power, as it will take feed according to the power applied. The grinders are made of cast iron, the cob cutters of steel, and when worn out can be replaced for a trifling expense, say one dollar and fifty cents per pair; and can be taken off, put on, and adjusted by any mechanic of ordinary ingenuity. The whole is substantially made, apparently of good materials, and put together in a workmanlike manner. The price, in Baltimore, including an extra set of grinders, is $35.

I have one of the abovementioned mills now in operation on my premises, worked by a small over-shot water wheel, 6 feet in diameter, buckets 18 inches long, receiving a very small column of water, say six inches square, with one foot head, and giving the mill only about 250 revolutions per minute. With this feeble power, I have ground 3 bushels of corn and cob per hour. After mixing the cob meal with oats, and setting the mill finer, I have run through it six bushels within the hour, and when mixed with wheat screenings, at the rate of 8 bushels per hour, reducing it as fine as shorts. It grinds oats better than any mill I have ever tried, and they have not been few. If a hopper was attached, so that the feeding could be graduated, all kinds of grain, for feeding, may be ground with ease; and so far as my experience has gone, I can safely and confidently recommend it, as being a very useful and efficient machine for the purposes intended.

Next in order, is "Baldwin's cob and corn crusher," * which was exhibited by Mr. Sinclair, of Baltimore, and took the Society's second premium.

This machine has been in use for several years, and if I were to judge from the appearance of the mill, and the testimony of those who have it in use, I should pronounce it a very powerful and efficient machine, and not very liable to be put out of order, and to last one's life time. The principle is entirely different from that of Mr. Hussey; one being a *grinder*, the other a *crusher*. It occupies more space, say 3 by 4 feet on the floor, and weighs about 800 lbs. The operating part is of cast iron, and very substantial. There are three series of fluted rollers; the first set, coarsely fluted, which pinches off the ear as it is fed through a small hole in the top, one ear at a time, and the pieces drop into the second set, which are still finer, and then fall into the third, which reduces it as fine as coarse hommony.

A correspondent in the American Farmer, over the signature of "A. H. T." referring to this machine, says: "Previous to the purchase of the crusher, we averaged the daily consumption of 214 ears of corn per day. Our stock then and now, number seven head. One hundred and sixty ears of the ordinary size are now run through the crusher; they make 2¼ heaping bushels of crushed corn and cob. The different appearance of the horses, and their ability to work, prove beyond a doubt, that the crusher affords a more nutritious and healthy food. It will be seen it also places to our credit, 54 ears of corn per day, which would amount to upwards of 30 barrels a year, worth at the average Baltimore prices, nearly double the cost of the crusher. With four men to turn, and a boy to feed, from 4 to 5 bushels per hour can be crushed. To work the machine effectually and economically, it must have velocity, which cannot be readily effected by manual power. With a two horse power, 13 bushels of corn and cob can be crushed in one hour. The crusher in question, came from the manufactory of Messrs. R. Sinclair Jr. & Co. Baltimore. During the two years we have had it in use, and quite roughly, it has not cost us one cent for repairs, and is now in as good order as when purchased." This, to say the least, is high praise in its favor, and from a careful inspection of the mill, I should think it true, and goes far to recommend it, and is what may be called *practical proof*, the best kind of proof.

The mill exhibited at the State Fair, in Sept. last, is now on sale, at the store of Wm. Thorburn, Esq. Broadway, Albany. Price $85. C. N. BEMENT.

Three Hills Farm, Dec. 1842.

* An engraving of this was given at p. 56, vol VIII, of the Cultivator.

THE BASKET WILLOW.

MESSRS. GAYLORD & TUCKER—At this period of low prices for agricultural products, it becomes the duty of every patriotic citizen, to point out all new articles for culture, that can afford profit to our farmers; more particularly such as will lessen the amount of foreign importations, our purchases having exceeded our sales five hundred millions of dollars in thirty years.

Of all the imports into our country, I have been more surprised to see that of the basket willow in large quantities than of all others. In every state I have traveled over in this country, I have seen thousands of acres of land now lying useless, that might be made highly profitable to their owners, by planting the willow. Fresh water swampy land, useless for common agricultural purposes, is the best for planting the willow. The basket willow is a light bulky article, and I have no doubt our farmers could raise them, take off their bark, and send them to market at a fair profit, for the usual cost of transit and other expenses incidental to the importation. Yet with such decided advantages in our favor, tens of thousands of bundles are imported into this country every year from Holland.

I have some practical knowledge on this subject, which I send you, in hopes that some of our enterprising farmers will attend to it, and raise the article for home consumption. Our basket makers inform me, that American willows are sometimes offered for sale, but that they are a brashy article, and of course very inferior to the tough foreign willow.

I was brought up to the dyeing business in England, in which eight of our copper kettles were appropriated to piece dyeing, five of them to delicate colors, requiring baskets inside to defend the goods from contracting stains, by coming in contact with the metal. To make the baskets, we raised two acres of willows, and we considered the profit equal to forty pounds per acre, after paying all expenses of cultivation, and of stripping off the bark. These willow beds were planted in fresh water swampy land, by throwing the soil into ridges, and planting cuts of willows about two feet apart. Our bed was old when I was young, and is now as productive as ever. Now and then, old stumps had to be taken up, and fresh cuts planted in their place. As we required large willows for our baskets, excepting for a part of the filling in, we cut them every two years; whereas, for common domestic baskets, they are cut every year. After a new bed is planted, the product will be light the first year; increasing in number annually, as the stumps grow larger. They should be cut in the spring when the sap is running, tied in convenient bundles, with one of the smaller willows, and the butt ends put into a mud hole containing water, to prevent the bark tightening before it is convenient to peel them. When we planted new ones, we merely cut off about two feet in length from the butt ends of the largest willows, and thrust them into the ridges where required, to about two-thirds of their length, leaving one-third above the ground for bearing.

As I mentioned before, the willows when cut, were made into bundles and placed in a mud hole, to keep the bark loose until they were peeled. I will now describe the process of peeling, which may be performed by any boy or girl of ten years old. The peeling machine was very simple. It consisted of two pieces of sound tough wood, opening about one inch at the top, and coming nearly close together at the bottom; inside of each piece was inserted a small round piece of iron, leaving half its diameter projecting from the wood, and the whole was about two feet in length, the irons coming close together at the bottom. This machine was firmly fixed in the end of a strong wooden bench, very much like that used by shoemakers, standing perpendicular from it. When worked, a bundle of willows, washed from the mud, were placed parallel with the bench; the operator sitting across it, drew the willows through the machine, letting it sink to where the irons grasped the bark. In many instances, once drawing through would strip the bark, if not, the willow was turned and drawn through where the bark still adhered. All the children I ever knew, were fond of this work, and it was quite a frolic for half a dozen boys, on as many benches, striving who could strip the greatest number in a given time.

Any farmer desirous of cultivating the willow, must make sure that he obtains the right species, as his future success will entirely depend on this circumstance. There is a great variety of the willow, and but few sufficiently tough for the basket maker. To prevent mistake in the commencement, it would be well to obtain cuttings from Holland, through the agency of the American consul. In a few years, these may be increased to produce an adequate supply for our demand. I have been informed that a German basket maker, residing, if my memory serves me, near Boston, raises his own willows, and has made money by the operation. WM. PARTRIDGE.

New-York, Dec. 6, 1842.

MERINO AND SAXONY SHEEP.

MESSRS. GAYLORD & TUCKER—In your Sept. No. is a communication from Mr. Sotham, headed Sheep Husbandry, in which he asks *whether the Merino and Saxony are distinct breeds.* Thinking I could point the way, if not give you direct information on a subject of no trifling importance, I send the recollections of my readings on the Merino controversy in England, in the attempt to establish them as a profitable breed for the rich pastures of the United Kingdoms, which the present limited number now kept, proves to have been a fallacious idea. Mutton and wool united, *there*, and will *here*, carry the palm of merit, *over wool alone.* The question will be between the South Down and the Merino, not between the Merino and Leicester.

I do not recollect the date when the then Elector of Saxony received from Spain,—although a law then existed making it death to export or transport a pure merino sheep from that country,—a number of sheep, and so well satisfied was he of their superior merits, that he obliged every vassal of the state, to receive (as the merinos increased,) a proportion of those sheep in preference to any other stock themselves might think it right to keep. He then established a board of scientific and practical men, and three times in each year, a regular examination of all the lambs of that year took place, by every individual lamb being placed upon a table, when symmetry of form and fineness of wool, was the passport to forming a part of the royal flock. With so rigid a scrutiny, will Mr. Sotham be surprised, that the Saxon Merino carries with it the superiority thought by him to indicate a distinct breed? There are three distinct breeds or races of Spanish Merinos, and little doubt can be made but so enthusiastic an amateur as the then Elector, procured from his Spanish Majesty the best of the three.

JAMES JONES.

St. Davids, Canada West, Oct. 15, 1842.

AGRICULTURAL IMPLEMENTS, &c.

EDITORS OF THE CULTIVATOR—Will you not through your columns, say to the venders of "Warren's Horse Power and Threshing Machine," that if they would furnish to the readers of the Cultivator, such a description of their horse power and machine, as to enable us to form an opinion respecting its capabilities, they would probably advance their own interest as well as gratify the public. So extensive is the circulation of the Cultivator, that but comparatively a small portion of its readers can have an opportunity to examine an article which is manufactured in but one or two places in the Union, and as in modern times it is not always safe to purchase a thing because it is highly recommended, many decline to order from a distance a really useful article, solely from the fear of being imposed upon. I doubt not but that those who have furnished for the Cultivator, well executed drawings and descriptions of the various implements therein described, have consulted their interest in so doing. Those who have only seen a four or six horse power threshing machine, (the only kind used in this vicinity,) and witnessed the inefficiency of the machine when impelled by too light a team, may well be surprised at the statements made by the venders of single horse machines. I always supposed that spiked cylinder machines required about 900 revolutions per minute, to do good work. Now in these single horse machines, is this rate of motion communicated to a shorter cylinder, or is the thresher constructed upon a different principle, so as to require less power and motion? I am led to make the above remarks and inquiries, by observing that one of your correspondents cautions farmers against purchasing any thing less than a 4 or 6 horse power machine.

CORN STALK SUGAR.—I tried this year, an experiment in raising fodder by sowing corn broadcast; and although my ground was as fertile as river alluvion, and the seed put in in the best manner, the crop has fallen far short of my expectations. From a portion of the stalks raised as above, I tried an experiment on a small scale, to ascertain the practicability of making sugar therefrom. The result of this experiment has led me to the following conclusions:

1st. That Mr. Webb's statement of the amount of sugar which can be made from an acre is not overrated.

2d. That stripping the ears from the stalks is essential to the production of sugar, though not essential to the production of a much smaller quantity of excellent molasses.

3d. That large stalks yield much more juice than small ones, in proportion to their size, and that consequently, the corn should be grown in drills, and not by sowing broadcast.

4th. That the principal labor in making sugar from corn stalks, consists in stripping off the leaves, and that this is most expeditiously accomplished before the stalks are cut.

5th. That three quarts of juice will yield saccharine matter equal to one pound of sugar; or that eight gallons of juice will make one gallon of thick molasses.

6th. That the manufacture of sugar from corn stalks is an object well worthy the attention of every family who has even one acre of ground to cultivate.

CHINESE TREE CORN.—Permit me to add a few words respecting the much talked of Chinese Corn. I think I can account for some of the contradictory statements respecting it, and particularly, Messrs. Editors, for its metamorphosis under your cultivation. I have raised the corn for the last two seasons, and have been acquainted with its growth in this vicinity ever since its first introduction to public notice by Mr. Thorburn; and I cannot perceive that it has, as yet, any tendency to degenerate. Compared with the corn ordinarily grown in the N. E. states, its growth is monstrous, and its time of ripening late: but compared with the tall gourd seed corn raised south of latitude 41°, in the western states, it is rather dwarfish, and not late. Many failures, I have no doubt, (and I think yours among the rest,) have proceeded from close planting; for I feel confident that if this, or indeed any southern or western corn is cultivated after Dr. Physick's mode, a great crop of stalks and leaves will be the only result. Less than 4¼ feet asunder each way, and more than 3 kernels suffered to grow in the hill, will not answer for this corn. Planted in this way, my Chinese corn this year, has done all that I could ask of it, producing far more corn, and more than double the fodder, that I could get from any other kind upon the same ground. 110 days, I consider necessary to perfect the crop in this climate, and mine has ripened in that time the past season, although there has not been a month free from frost since Aug. 1841. My location is in 41° 20 N. lat. and 6° 30 W. from Washington.

In addition to our monthly frosts, I will mention as another peculiarity of the past season, the fact that in this vicinity, as far as I can learn, no bees have swarmed. I had one strong swarm in a hive somewhat similar to Week's Vermont hive, with a pane of glass in the lower part of it. In this hive, the first young bees were discovered about the last of July. Can Mr. Weeks, or any one else account for this? That it may not be supposed that this was an accidental circumstance with me, I will state my observations have extended to probably a thousand swarms, in all sorts of hives, the Vermont hive among the rest. W. R. P.

Bowling Green, Wood co. O. Oct. 22, 1842.

CULTURE OF COTTON.

MESSRS. EDITORS—In the Oct. No. of the Cultivator, I noticed in P. S. under the signature of N. B. Cloud, M. D., that if he was not greatly deceived in some experiments he was making, he would astonish some of your subscribers in the cotton region, toward the winding up of the present crop, in regard to an entire new and improved mode of culture, by which he proposes to curtail the expense of producing this great national staple to one-third its present enormity.

I am one so credulous, that I am disposed to believe almost any thing that promises good, but still I cannot venture farther than to say I feebly hope he may succeed in all that he has said, and if he does, he will be the greatest benefactor of his race.

The great Fulton failed to reduce the expense of transportation two-thirds, but the improvements of others added to his, fully accomplished that object; and if Dr. Cloud, aided by 100 co-workers, should succeed in reducing the expense of raising cotton even one-third, his name, with the 100, should be enrolled among the greatest benefactors; but I will wait to see his promised version of the whole matter, hoping he will strengthen my feeble hope into confidence of his success. I must say that I am sorry he has promised so much, for I feel somewhat forestalled in a like undertaking; an experiment that I have had on hand for 3 years, and yet it will take 2 years more before I can announce the full result of the experiment; yet so far as I have advanced, I will give the result.

Two years since, I found in my crop, a stalk uncommonly loaded with balls, and what is uncommon, the balls were something larger than common. I saved and planted it by itself. Only about half of the next crop was like the mother stalk. I again selected from the best stalks, which I planted last spring, showing it no special favor, either in cultivation or the land on which it was planted, excepting that I gave it about 3 feet distance in the drill, which is nearly double the common distance, the drills being 4 feet apart, (common distance.) My motive for giving such distance, (although my land is quite common,) is that I knew distance is favorable to cotton bearing well; having in view for the present, the improvement of my cotton more than the quantity to be raised off a small piece of land; but I was somewhat surprised to find that my improved cotton yielded 1,403 lbs. per acre, against 1,040 lbs. per acre of seed cotton, from the balance of my crop. I have again selected from the best stalks to carry forward the improvement, and I propose to give you an annual account of my progress, provided I am not eclipsed by some more brilliant results. If I find that 3 feet in the drill is the best distance in common land, it will be about one-tenth easier to cultivate; and as I find the balls to be one sixth larger than common, I think it can be saved one-tenth faster; and to facilitate saving of cotton in Mississippi, is almost as great an object as to increase the yield.

The country is sickened with humbugs; and I am proud to see such spirits as N. B. Cloud, rise in aid to put them down. Down with them, and let the future be an age distinguished for generous emulation, and let him that can confer the greatest amount of benefit with the least pay, be counted worthy of all honor.

The present crop of cotton, in this and the adjoining states, as far as I have heard from, is undoubtedly better than common, and the forebodings about price never were so gloomy since my recollection, but even if it should fall one or two cents lower than its present low price, I do not think it will be any injury to the cotton planter that is out of debt; for a failure in the East India cotton will certainly follow, and then the cotton planter, with an improved system of economy, will reap his reward. Respectfully yours,

Noxubee co. Miss. Nov. 21, 1842. M. T. M'GEHEE.

IRISH AND "SCRUB" CATTLE.

MESSRS. GAYLORD & TUCKER—Commentator may feel *perfectly at ease. He has not incurred my wrath,* but I did not expect *censure* from him until he had sufficient grounds for it. At all events, it was little but *declamation,* without amounting to much. *I yield to nothing but proof.*

I said Mr. Randall might breed from the "*scrub stock,*" or *common* breed of the country, without success, and I truly believe it. I may be wrong, but this is my opinion if he confines himself to the "common," which I say are the commonest breed of Irish cattle, called Middle Horns, although they possess larger paunches, more ragged hips and chines, than the Irish breed of cattle generally do, which I think is a very serious evil. But this I attribute to *careless breeding* and treatment.

I have seen droves out of number, brought into Liverpool, where the neighboring *third class* graziers and jobbers meet them, select the *best handlers,* and leave the inferior ones to travel farther, to be sold at a much cheaper rate. They are driven from fair to fair with a heavy tax on the drover's purse and patience, until he meets with a "*green*" grazier or jobber to release him, and the fag end are sold at a very low price, without *much* profit the seller or purchaser.

There are evidently two breeds, the Long Horns and Middle Horns. Tradition tells us the former are the origin of the English Long Horns, and I have no reason to dispute it; they are far better grazers than the middle horns, but not as good milkers, and so they have proved in this country as regards quantity.

Reason seems to tell me that the earliest settlers could procure this breed, at the seaport towns, at the least expense and trouble, *without reference to the best of the drove,* and at that day the superiority of breed was but little thought of. This is the kind of cattle I call "*scrub stock, common, or native.*" I do not class a mixture of the Hereford, Short Horn, Devon, Ayrshires, &c. with this stock. A cross with the short horns, would be the *identical* cattle Mr. Randall would breed, according to his *own doctrine,* and if he still grounds his faith on "Youatt," he will find that this breed has been crossed with the short horns "without success."

I again refer Messrs. Randall and Commentator, to their *favorite* author, for the early improvement of the Long Horns, or "Mr. Bakewell's *breed,*" which I should have dwelt upon at some length, had not the able communication from Mr. Howard superceded me, and to which I will add another quotation from "Youatt," but I do not *quote it* as gospel. "In the districts where the experiments (on the Long Horns,) were carried on, it established a breed of cattle, equaled by few, and excelled by none but the Herefords." You will find this, page 197.

Hereford Hall, near Albany. W. H. SOTHAM.

THE WILD TURKEY.

MESSRS. GAYLORD & TUCKER—In your replies to an "Enquirer," in relation to Poultry, in a late Cultivator, you say, "We are not aware that the Wild Turkey has ever been crossed with the domestic one, or that a successful attempt has been made to domesticate them. Such attempts appear to be scorned equally by the Wild Turkey and the Partridge."

I am sure you will excuse me for reminding you that the wild turkey and the domestic turkey, are identically the same animal, the *habits* of the bird alone having been modified by domestication. Very few people know that this is peculiarly an *American bird;* that the wild turkey was caught in our forests, and carried to Europe in 1610, I believe, and thence sprung the whole brood of domestic turkeys of Europe; and that was at least one instance of a successful attempt to domesticate it. As to crossing, Mr. Audubon, in his splendid work, the "Birds of America," says, "Wild Turkeys often approach and associate with tame ones, or fight with them and drive them off from their food. The cocks sometimes pay their addresses to the domesticated females, and are generally received by them with great pleasure, as well as by their owners, who are well aware of the advantages resulting from such intrusions, the half breed being much more hardy than the tame, and consequently more easily reared." When a wild turkey has been kept three or four years, it often changes color more or less, white feathers appear, &c. The effects of domesticating this bird, are a variety of color, and more delicacy of constitution. The domestic turkey has often been known to stray off, and assume all the habits of the wild one, and in the course of two or three generations their color even assumes the fixed characters of the wild bird. So far as known, there are no varieties of the turkey; color being the only difference between any of them. It is said to require several generations to fix the habits of the bird by domestication, and these habits he is always liable to lose. Your readers, I am sure, would be much pleased with an opportunity to read the chapter on this most valuable of birds, contained in Mr. Audubon's admirable work above referred to. G. B. S.

BERMUDA GRASS.

EDITORS OF THE CULTIVATOR—In your August No. inquiry is made, by a correspondent in Georgia, how to destroy Bermuda grass. The succeeding number not containing an answer, and if none other be received for your next number, the following mode may be suggested as having been successful in Alabama:—Begin in the spring, at the first appearance of green leaves, or at a la

ter period in the spring months may answer, with sharp weeding hoes to cut off the grass on a level with the surface of the ground; (which cut grass should be removed and burned,) and then not fail thereafter to cut off a little below the surface, the sprouts or leaves, *as often* and *so soon* as they appear above ground, even if it be thrice a month in wet weather or spring season. In dry weather, and at a later period, the sprouts or leaves will not put forth so often. The philosophy of the case is this, that to form healthy roots, the sap must be elaborated by a chemical action of sun, air, and absorption of gases in the leaves; but if deprived of the leaves, the sap ferments, putrifies and destroys the roots. The same will apply to the Canada thistle, elders, or any other vegetation whatsoever, though one kind of vegetation may require the budding leaves to be removed from the limbs, stalks, or stems, more often than another to effect the same object. Bermuda grass forms a firm sod, excludes weeds, thrives on ordinary sandy as well as other ground, and keeps green through drouthy summers; qualities which no other grasses at the south possess. It is appreciated for affording to poultry the supply of green food that they need, for grass plats, and embellishments of door yards. In time it may spread to gardens and fields, not from seeds, as they do not mature in frosty climates, but from the stalk running along the ground, taking root and putting up stems with leaves at the joints, which are an inch or two apart. Your correspondent is not likely to be informed of any plan to free his fields of this grass, by means of sowing seeds of grasses less injurious to crops, nor by grazing, nor by plowing, which he mentions as the mode he should prefer to destroy it.

Respectfully, JOHN J. CROCHERON.

Richmond Co. N. Y. Sept. 16, 1842.

THE VINE, SILK CULTURE, &c.

MESSRS. EDITORS.—As yours is a periodical of very general circulation throughout republican America, and therefore a common receptacle of agricultural intelligence of all sorts, and from all places, I offer you a few passing remarks on the above topics. And permit me to say, as introductory thereto, that if wine and silk be important branches of agriculture, or the art of arts, as it regards useful and honorable employment, and the lessening of annual millions of foreign dependence and indebtedness for such articles; that North Carolina, or our section of the Union, is destined by soil and climate, to become conspicuous in these matters. Indeed our state I see ranks highest as to wine, in the result of the late agricultural products of the Union.

I proceed to state my success the past season in wine making, or the increase of the products of my vineyards. Notwithstanding the injury occasioned by two severe protracted storms, or so called *gusts* in this region, last year, without material interruption of common farming operations, I made about eight barrels of wine, (a part of which I have already sold at the rate of two dollars per gallon;) this year, near twelve, besides selling grapes at my vineyards, and wine juice from the press to some amount. I consider I lost several barrels by the gusts. I calculate on at least a dozen and a half barrels next season; and an intelligent visitor to my establishment, esteemed a judge in such matters, declared his opinion that in a few years, by continuing my American process of vine culture, I would probably make fifty barrels of wine annually, on a few, or four or five acres.

A few years since, it was thought by some, I would fail of eventual profit from my vineyards, on account of gratuitous visitations to see and partake of grapes. For besi les invited, many uninvited guests called upon me in grape time. But to protect myself, as well as the cause, I advertised 25 cents individual entrance into the vineyards, and 50 cents per gallon, for all grapes called for and taken away. And since, while a few illiberal people censure this necessary measure, as a novelty here in the fruit line, the truly honorable and liberal minded sustain and visit me more freely and frequently than ever.

It is conceded by all acquainted with the fact, that I am indebted for entire success in the vineyard business, to the circumstance of abandoning any *European* or *foreign*, and adhering closely to my "*American System*," as to *kinds* of (native) grapes, modes of culture, and process of wine making. Among native grapes, Weller's Halifax, and Norton's Virginia Seedling, rank highest in the vineyards around here; and in those near Richmond, Va. and adjoining regions; except, perhaps, the Scuppernong, a native of the lower part of this state. But the peculiar excellency of this last, I learn, is confined to latitudes south of 37. My Halifax seems adapted to all (at least American) climes, or wherever tried: for instance in Orange county, N. Y. my native place, where my friends inform me it is cultivated with entire satisfaction and success. Such is the estimation of my native vines, (some dozen kinds of peculiar excellence,) that of a pretty extensive stock in market of well rooted ones, (cuttings as of so comparative slow and uncertain issue, I give away to liberal patrons,) I expect, from the experience of past years, to have none left by the time spring opens here. I have applications now, from various states of the Union.

SILK OPERATIONS AT BRINKLEYVILLE, N. C.—As to silk operations the past season, my earliest crops did very well; but not so, (as heretofore,) the late fed worms. Indeed, from several years experience, and from that of others, as far as I have learned from periodicals and other sources, I am constrained to say I am disposed to abandon late feeding, as too precarious in the result for expected profit. Even lime has not proved a sufficient antidote to the diseases of late fed worms, so far as I have tried. Nor even the fresh successive growth of multicaulis leaves, either after stripping the branches, or after the cutting down and new growth of the trees. Though such is the peculiar excellency of this kind of mulberry for silk, as to rapidity and succession of growth, (the slow growth and old tough leaves of other kinds out of the question, I think, as to late feeding with success,) that connected with lime, and Mr. G. B. Smith's new theory of hatching, and more certainty as to successful keeping back eggs in the ice houses, that if ever late crops be an object, or of general and successful practice, it must become so from that source. I give credence to the statements that some few late crops have been successful with peculiar care and under peculiar circumstances. But the idea that it is an object, from present light and experience, to attempt such crops for profit, I am thoroughly convinced is calculated to produce a discouraging reaction to the silk cause, now progressing in various parts of our country with all reasonable hopes of general success. But such success, I apprehend, must be had on like principles with that at and around Mansfield, Conn. for near a century past. And I will briefly give the process there, as detailed to me by a young lady from that place, to whom I gave a hundred dollars, for coming a month or two in my family, to teach us the silk art, by example and precept. Miss Dunham said her mother before her, had been brought up to the business, and that the outline of their procedure there was this:—1st. To keep their eggs cool, or say between folds of linen cloth, till spring, when they hatched as the mulberry leaves unfolded. 2d. To make as great a crop as they could, by turning their kitchens and out houses into silk worm receptacles; and to exchange work with people in the adjoining country, to be returned when the silk crop was secured, particularly female labor or that of the cheapest kind. Various other details she related, too tedious for our prescribed limits; yet one or two more, I will name, as, 1st, to secure a healthy crop, they always used eggs from the most healthy worms, even if they bought from one another. And 2dly, they turned most of their crops into sewing silk, by a process on common wheels. I observe here, that agreeably to her example and instructions, these 3 years past, we have been making first rate sewing silk, that commands a good and ready market. That at this time we are making a quantity to supply an order from a store near us, at rates of 4 cts. per skein, or more than $10 per lb. And that I have sent sample or skeins to those I esteemed the best judges, in various parts of our country, that were pronounced good and well colored, according to a very simple process of coloring a blue black. For instance, to Mr. Morris Pollock, a great silk man from Scotland, lately settled in Virginia; and to Mr. Polhemus, agent at Auburn Penitentiary, from whom I received in return, some beautiful samples of sewing silk there manufactured. The Mansfield plan of little expense for buildings and labor, is doubtless most prudent in most cases. But as to myself, after careful examination of various plans and fixtures North and South, I erected a silk house combining various advantages besides those for the primary object. I erected it on upright timbers or posts, placed on rocks or large stones, and the building proper standing 10 feet above ground level; and so fixed as to be rat, mouse, and ant proof, or free from danger of these three common annoyances. Then in rainy weather, to quickly dry leaves or multicaulus branches, we hang them up under the silk house, to enjoy the free circulation of air. By a furnace underneath, and square box leaders on the edges of the rooms above, I can heat as I choose in cold or damp weather, (a thing desirable, but not indispensable.) The fixtures above, are somewhat on the plan of Mr. E. Morris' silk frames, connected with an invention of my own and another's, on the inclined plane or self-cleansing and spinning plan; which fixtures can at any time be taken down and stowed away, and then my rooms are first rate as a granary, and for various farming operations. And underneath I find very convenient for weather protection of my vehicles, farming tools, and the like.

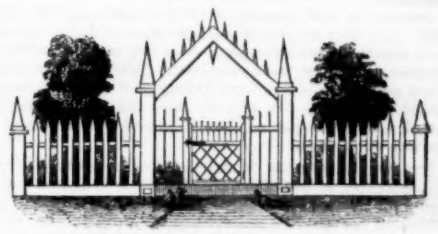
Fearing to become too prolix, I close for the present; but intend shortly to send you an account of the continued experiments of myself and others, in making clover a certain crop even in southern climes, and doubling the product of wheat therewith, by a thin surface covering of pine leaves, or straw, or other litter. Also of the renewed success of double and triple crops. Likewise trials of sowing small grain without covering with earth, or otherwise than with straw or the like, according to the new theory of nature's process in the vegetable world. And also some remarks as to the peculiarity of agricultural labor employed in the South.

Yours, &c. SIDNEY WELLER.

Brinkleyville, Halifax co. N. C. Nov. 1842.

SOUR SOILS.

MESSRS. EDITORS—It has often occurred to me, in reading, or in conversation, when the word *sour soils, acid soils*, &c. have been used, that it was a misapplication of terms, similar to that in very common use in relation to cold and heat. For example, it is a common saying that if you put frozen potatoes into cold water, you will thus *draw the frost out* of them. Cold being the mere absence of heat, or the result of heat rendered latent or inactive, is of course not matter, and cannot be drawn out of any thing. The proper expression is, by putting frozen potatoes into cold water, you restore the proper degree of heat to them; and the reason why it is better to restore heat to them in that way, than by exposing them directly to the influence of fire, is, that the transition from a low to a higher temperature is thus rendered gradual and of course harmless. These remarks, however, are intended to illustrate my idea of sour soils, which is, that such soils are not indeed sour, but are merely deficient in alkali. The proof generally offered to establish the existence of acid in soils, in my opinion only proves the absence of alkali, or alkaline earths. That a soil produces sorrel, (Rumex acetosa,) surely does not prove "*per se*," that the soil itself is sour or acid; because, if it did, we should be able to prove all soils to be sour, for there is no one that does not produce some kind of vegetable acid, and some that are known to be highly charged with alkaline earths, are very prolific of what is called sheep sorrel, a species of oxalis; almost all soils produce currants, crab apples, &c. I think, therefore, that what we call *sour soils*, merely lack the necessary alkaline principle which is necessary to the formation of almost all vegetable growths. G. B. S.



ORNAMENTAL GATE.—(Fig. 10.)

MESSRS. EDITORS—I think it is truly said in a former No. of the Cultivator, that "there is no one thing that gives more character to a farm than a neat and handsome gate at the entrance." Yet many farmers seem contented with rough bars, the taking down and putting up of which, must add considerable to a year's work. The engraving represents a gate and fence, which we erected around our garden last spring. I do not say that it is more ornamental than some other gates, and if some of your correspondents will give a better model it will be thankfully received. The gate posts are 10 feet long, 10 inches square, and set three feet into the ground, with a bed piece between, into which the inner posts are morticed. The fence posts are 4 feet long, 10 inches square, and made of 1¼ inch plank, well spiked together. A long stone is set solid in the ground, the hollow post placed over it, and the cavity between the stone and the inside of the post filled with pebbles. I know of posts set in this manner which have lasted ten years, and continue as firm as ever. Now if a person would have a pleasant and attractive home, he must have his buildings, gates, and fences, in good order; his garden well laid out and filled with choice fruits and flowers; pleasant trees around his dwelling, &c. Some may think that they shall receive no benefit from setting fruit and shade trees, but if they live by the principle of "love your neighbor as yourself," they will banish such thoughts at once. LAWRENCE SMITH.

Middlefield, Mass. Aug. 8, 1842.

FEEDING BARLEY TO STOCK.

EDITORS OF THE CULTIVATOR—Enclosed is my subscription for 1843, with my best wishes for increased circulation to the best agricultural paper I am acquainted with.

Has Bommer's Manure been tried sufficiently to warrant confidence in its use? It will serve the inventor more, to be able to refer to experiments by practical farmers, than all other endorsements.*

The very low price of Barley, induces me to remark to my brother farmers, that they may use it for their stock to much better profit than selling it to the brewers. I have almost invariably fattened my hogs on Barley meal. I fed one span of horses on it for some years, and I thought they did not yield to any farmer's team, for either speed or endurance. When not convenient to grind it, I soaked it in water as for malting, taking care that it did not sprout too much. I doubt not that this use of barley is well known to many, but if it should be of use to a few only, this communication will not be

* We have seen several certificates from those who have tested the quality of the manure made by Mr. Bommer's process, and we annex one which we find in the last No. of the Conn. Farmers' Gazette:—[EDS. CULT.]

"I hereby certify that having made repeated trials, of Mr. George Bommer's method of making Manure by fermentation, and having tested its effects in the rapid decomposition of the mass to which it has been applied, and having also witnessed the influence of the manure made by this process in promoting the growth of vegetation, I am prepared to regard the invention as an important accession to the farming interest; and although having tried other modes of making manure with varied success, I am free to acknowledge that I have never been acquainted with any system of the kind that would compare with this for utility. ERASTUS DUDLEY.

North Guilford, Nov. 23, 1842.

"We are well acquainted with Mr. Dudley, the author of the above certificate, and we know him to be a man of sterling integrity. He is an intelligent farmer, and not likely to be imposed upon by every *new thing*. Inasmuch as he has tried Mr. Bommer's method, and gives his unqualified testimony in its favor, we have no hesitation in commending his statement to the confidence of the public."—*Farm. Gazette.*

in vain, although a trifle. For animals giving milk, it is hurtful, occasioning the milk fever. I attribute to it the loss of a sow and her litter, some years ago. For horses one-third to one-half (in barley,) of the usual feed of oats—better still to take weight for weight.

Respectfully, JOHN MOXON.

Charlotte, Monroe co. N. Y. Dec. 9, 1842.

BRINE YOUR HAY—OLD WHIMS.

MESSRS. GAYLORD AND TUCKER—It may be well to remind some of your readers of the advantage of salting their poor fodder, at intervals through the winter, both for cattle and sheep.

Lay by all your hay, stalks, straw, &c. that are coarse or damaged, then once or twice a week, in warm days or moderate weather, brine this refuse hay and other feed: to one pail of water add one pint of salt, sprinkle this brine on one large forkfull of dry food, and you will find that all or most of it will be consumed, though some locks may not be impregnated with salt.

Several important advantages may be gained by this treatment.

First—you will dispose of all your poor fodder; *second*—they will eat it with avidity and look full in warm faint days when tolerably good feed may lay before them rejected, or eaten with reluctance; *third*—it answers every purpose of otherwise salting the stock as they should be; *fourth*—you will not lose one half the number of animals, especially sheep, as you would to manage any other way.

DISADVANTAGES OF AGRICULTURAL PAPERS.—It is very common to hear the farmer say, "I will not subscribe for this or that agricultural paper, because it is published *one hundred miles* or more abroad from me, and *our* farming requires a very different process where we live from the neighborhood where the paper is issued."

Now, by these numerous objectors I would like to have some one of them answer, through your paper, why salting stock as above directed, except near the sea shore, would not be beneficial in any other state? and also inform us what difference there should be of soil in Maine or Ohio or any other state, to produce corn from that which is required in the vicinity of your paper? And whether the same manures when applied in the same manner on the same kind of soil, will not produce the same effect on the same grain in any country? What different effects would draining have in the western or southern states over the northern, when executed in the same kinds of soil, similarly located? A plow that succeeds well in one state why not in another, if the soil and sod be the same, where the same kind of work is required?

Why will not a probang or any other instrument that may be described in your paper, that will in all cases succeed in extracting a potatoe from the throat of an unfortunate animal in Wiskonsan, answer as well in the same capacity in Vermont.

I will wait on your opposers, Messrs. Editors, with patience, and not propose any more questions, if they will either truly answer the above questions or subscribe for your paper. We hear much said about hard times, but it is an encouraging thought to know that we shall not live under a cloud always.

With respect, yours, S. W. JEWETT.

Weybridge, Vt. Dec. 1842.

FEEDING SHEEP.

TO MESSRS. GAYLORD AND TUCKER—In my note to you, published in the Oct. No. of your paper, I left it to appear that in regard to Mr. Grove's feeding, I quoted only from his letter published in the Transactions of the State Society. Allow me to give proper credit for that part of my quotation respecting his feeding, which Mr. G. objects to as not having made use of. I found it in the August No. of the "American Agriculturist," where, after a general statement of his feeding, similar to that in the Transactions, he says, "to my Ewes, five weeks before lambing, I give as much hay as they will eat, and four bushels of potatoes to the one hundred."

In my communication I had intended only to have drawn a comparison between our respective animals, and was not aware I had written any thing that could induce strife between the owners. Mr. Grove's well known excellence as a shepherd, should have induced more liberality over the errors of his junior.

I had intended having ready for the January No. of your paper, a portrait of my South Down Buck, that took the 1st premium at the late State Fair, and to have asked its admission into your paper, but shall be disappointed in procuring it before the February paper.

I am yours, respectfully,

J. MCDONALD M'INTYRE.

Albany, Dec. 21, 1842.

BERKSHIRES IN NEW-JERSEY.

DEAR SIR:—The imported swine which you chose here from my Piggery, last month, and which I this day ship you, per canal boat, were selected by me last year, from the very best and choicest breeding of Berkshire stock in England. In making my selections there, I not only paid particular attention to an enlarged size, over most of those heretofore imported, but also to their general fineness of point, especially of the skin and hair, aptitude to fatten, quick growth, and early maturity.

To accomplish this, I took unwearied pains, looking over the herds at the different places from whence the stock was chosen, so as to be satisfied of its general good breeding, that I might not be deceived by a promising individual example, and I find, now, upon comparison with those bred here at home, and also previously imported, that these selected by me are a most superior lot. Though scarcely a year old at his purchase, Hagbourn cost a higher price than any other animal of the importation; and I consider him a most superb hog, and what little stock we have bred here from him, appears very promising and gives great satisfaction.

Most of the other sows in your purchase were by imported boars, and all are of good size, fine points, and noted breeders. I cannot think but you will do well with them, and that the stock will not fail to please all your customers far and near. Trusting that all will arrive safely and meet your expectations, I remain,

Very respectfully, yours,

A. B. ALLEN.

MR. CHAS. STARR, JR. *Mendham, N. J.*

Buffalo, Oct. 4, 1842.

EDITORS OF THE CULTIVATOR—It is said that three mules will not consume more food than two horses, and that the mule is much less liable to disease than the horse; also that mules will generally remain good for use till 40 years old, and will do as much work as a very good horse; and also out-travel a horse team with a load.

If these are facts, and I believe they are, why not lend your aid towards the more general introduction of mules? MAGNOLIA.

Domestic Economy.

ORANGE COUNTY BUTTER.

DR. BATES, of Maine, having spent some days at Goshen and Minisink, in Orange co. in this state, has given to the Maine Cultivator a full account of the process of making the butter for which this district is so famed. Good butter is an article of so much consequence to every one; and there is, notwithstanding all that has been said and written on the subject, so much miserable butter offered in the market, that we have for the benefit of our butter making friends, condensed the paper of Mr. Bates, omitting nothing essential to an understanding of the method pursued in making Orange Co. Butter.

"I visited Gen. Wickomb's yard in Goshen, where I saw 40 cows; all, or nearly all, grade animals of the Durham short horned breed. Every cow has a separate stall, and outside door made of three upright boards, with two open spaces 3 inches wide, to admit the air. • • • Now for the butter making. The milk is strained in pans or oaken tubs, holding two pails full. Every thing is done in the cellar. The milk is not meddled with until it is *coagulated*, when each day's, or each half day's milk is put in the churn with nearly an equal quantity of water, cold in summer, and warm in autumn or winter, to bring it to the proper temperature, which is from 55 to 60 degrees. The churn is made in the barrel form, of oak; hooped with iron, with a wooden hoop three inches wide at top, in which the cover rests. For six to ten cows, the churn should hold 30 gallons, and in that proportion for a larger number. I believe they rarely exceed two barrels, as in large dairies they prefer to churn several times a day, to the use of larger vessels. Churning is never done by hand, except for a single cow. In small dairies, the churn is worked by a dog or sheep, the latter being preferred; the larger have water or horse power. The dog or sheep, walks on a wheel 8 feet in diameter, inclined at an angle of 22°, cleats being nailed on to prevent the feet of the sheep from slipping. These wheels are often out door, sometimes in the cellar; the motion is communicated by gearing and iron rods.

When the butter begins to curdle, all is washed down with another pail of water, and the motion continued until the butter gathers. *Let it be remembered the butter is never touched with the hands.* All is done with the butter ladle, the handle about 5 inches long. The ladle and the tray for working, are always kept filled with cold water, when out of use, to prevent the butter from sticking to them. The butter is first worked and salted in the tray. When it has stood long enough to become firm, after salting, all the butter milk is worked out, and it is packed down solid in tubs of 40, or firkins of 80 pounds. In packing, if it cannot be made solid by the ladle, a pounder is used. When one churning has been packed, a cloth is put on covered with salt. This is taken off at each addition, and replaced, until the tub or firkin is almost full, when half an inch of strong brine is poured over the cloth. Salt is never left between the layers. *Blown* salt is preferred to *ground*, because it is finer, and diffuses itself sooner and more perfectly through the mass—it requires a greater measure of this salt, but the same weight. A churn used daily, is cleansed twice a week. The tubs are prepared of oak or ash, and when wet, rubbed thoroughly with as much fine salt as will stick on the inside. Butter thus made and cured, will keep for years in a cool place, and sells on an average, fifty per cent higher than butter made in the usual way.

Cows average from 150 to 200 pounds in a year, and the butter milk is estimated to make 100 lbs. of pork, which formerly paid all the expenses of making the butter, but at present prices only about one-half. Some churn over the butter milk, after it has stood one day, and pouring off the water. One man, who had ten cows, told me he made all the butter used in his family in this way, and had 20 lbs. on hand."

EGGS.

MESSRS. EDITORS—In a late number of the Mass. Plowman, I observed the following statement:—"Mr. E. G. Tucker, of Milton, tells us he obtained 600 dozen of eggs in one year, from 83 hens—this was his largest number of fowls—he sometimes had less; that for 562 dozen, he took 100 dollars within one cent. The whole amount of his cash receipts was $123.33, and his cash expenditures were $56.43, leaving him a balance of $66.90. Mr. Tucker has very convenient yards, and high picket fences. He lets his hens run at large when they can do no mischief, and he can put them in pound just when he pleases."

This statement induced me to look over my egg account for the past year, and I find the following results. When my hens commenced laying, January 19th, I had 37 hens; when they ceased laying, November 20th, I had 26 hens; the average for the time might have been 32. The number of eggs collected was 3,298, or about 276 dozen. As my hens run at large, numbers of nests were "stolen" by the thieves, in the high grass about my barns, and I lost 208 eggs in this way; the hens from some cause forsaking their nests, or being broken up before hatching. I did not intend to allow any to set, or attempt to raise any chickens; but one or two were overlooked, and I had a dozen of fine chickens for thanksgiving. The expense of keeping my hens has been trifling. I had some corn that did not ripen in 1841, and of this, a quantity was kept at all times during the winter and spring months, within their reach, for them to eat at their pleasure. Ten dollars would be a high estimate of the value of the matters fed them; and during the rest of the season they received no attention as to feeding, whatever. My hens were all young; and I would advise those who wish to have an abundant supply of eggs, to keep none but such for laying. Where chickens are to be reared, older hens will be better, as they will rarely leave their nests, which young ones are apt to do. I kept three cocks with my hens the most of the time. The gathering the eggs, was the amusement of my little boy of eight years old, who for this service, received a satisfactory gratuity. As to feeding hens, I prefer keeping a supply of food constantly within their reach, as I believe they will eat no more than they need, and certainly no more than will be profitable. Starving hens is as unprofitable as starving pigs or cows; and from lean hens no one need expect many eggs, or those of good quality. A LOVER OF GOOD POULTRY.

MAKING VINEGAR.

EDITORS OF THE CULTIVATOR:—S. E. T. asks, in the Cultivator of the present month, to be informed how to convert cider into good vinegar.

In large cities, vinegar is manufactured for sale, by adding sulphuric acid to cider, and it becomes sour immediately. But this is not the best quality of vinegar; and it changes to a black color when exposed to the air.

To be always supplied with good vinegar, procure a cask of the best quality of vinegar, and as vinegar is drawn from the cask, add one or two quarts of sour cider daily, so as to keep the cask nearly full, and you will always be supplied with good vinegar. If too much sour cider is added at one time, it reduces the vinegar, and it will not be easy to restore it to the best quality.

Procure cider annually; and in the spring, draw it into other casks. Repeat the drawing from one cask to another, and it will soon become half made vinegar for feeding the best vinegar cask. If you would be well supplied, procure several casks for half made vinegar, to supply the good vinegar casks. I have practiced this mode for a long time, and esteem my best vinegar cask of great value.

If S. E. T. will add a piece of bread dough to his cider, and rack it off several times, or shake the cask often, it will soon become good vinegar, if kept in a warm cellar or room.

ANOTHER RECIPE.—To a hhd. two thirds full of cider, add for each barrel one pint of white beans, one quart of pounded corn cobs, four sheets of brown paper covered with molasses, one barrel of rain water to be added. It should be placed a foot from the ground, and shaken frequently.

By this plan vinegar may be made of cider from the press in a week.

This is said to be a good recipe, but I have not tried it.

Respectfully, DAVID TOMLINSON.

Schenectady, Dec. 15, 1842.

WINTER BUTTER.—To make butter in winter, place the pans containing the milk in hot water about 25 minutes, or till it begins to change, for there must be a slight sour in the cream to insure a good churning. A little of the old cream or rennet may be used to change the cream. The operation of churning such cream seldom exceeds twenty minutes. A.

"RECIPE FOR MAKING CORN CAKES.—Take one pint of good cream, one pint buttermilk, one egg, one teaspoon full salæratus, one tea spoon full salt, and stir in meal till it forms a thick batter, and bake on a tin or other vessel as is convenient. If made with good meal the cakes will be excellent."

Veterinary Department.

ABORTION CAUSED BY SMUTTY OATS.

It is well known to medical men that there are various substances which will produce strong contractions of the womb, and are sometimes used in midwifery to effect this purpose. Of these substances, *ergot*, or the horned or smut rye, is the most common, and its fatal effects, where it occurs on the grasses, as it sometimes does, renders its pernicious effects well known to farmers. But it seems not to be generally known that smut in oats should be classed with the most active of agents belonging to this class.

We find in the Tennessee Agriculturist, an interesting account furnished by Francis Gordon, of the effects of smut in oats, in the case of four mares owned by Mr. Denny, of Tenn. The whole were fed on corn and fodder during the winter, and did well. About the first of March, they were fed with cut oats, of which from one-fourth to one-third were smut or black heads. "One mare soon lost her colt, and continued to exhibit signs of labor pains for several days, till she died. A short time after, two others lost their colts, and continued to make apparent efforts to foal, showing uterine contractions for ten days. They reduced in flesh rapidly, till Mr. Denny informed me of the circumstance, when suspecting smut to be the cause, I advised him to discontinue oats as a feed. He did so, and the mares soon began to recover."

"Why did not the fourth mare lose her colt also? Because she was not fed on oats. She has brought forth a colt at the proper time. A gelding and two oxen were fed on the cut oats during the whole time and all did well. This was because they had no womb to be acted on by the smut. Why did Mr. Denny's oats produce abortion, while other farmers have fed their mares on oats without such misfortune? Because Mr. Denny's oats had between one-fourth and one-third of black heads, while theirs were probably better oats. Why did the mares continue to show signs of powerful uterine contraction after they had lost their colts? Or why did the labor last so long? Because they were continually fed with the same oats; and therefore every new meal produced new labor pains. But when the two last mares were put upon fodder instead of oats, the womb was no longer stimulated to contract, and they immediately recovered."

Dr. Gordon thinks it very probable that many of the cases of abortion in mares, which have been ascribed to "clover, flax seed, beef's blood, swimming in water, &c." as well as those cases in which mares after being sent to a stallion for the whole season, have proved to be not with foal, may be traced to this cause. However this may be, the facts stated are sufficient to put farmers on their guard against feeding breeding mares with smutty oats.

SICK HOGS.

The diseases and treatment of domestic animals, must necessarily claim the attention of the farmer. Sick hogs, I have been informed, could not be cured, and when they would not eat, there was no hope. In consulting Loudon, similar opinions were expressed, and last autumn, when one of my neighbors lost three hogs by sickness, I began to think the general opinion was correct. But in Oct. 1842, I was led to draw a different conclusion, the following case being the first in which I had acted as hog doctor. The circumstances were minuted at the time, and you have them as entered in my memorandum book.

October 5th, 1842. This morning a young half breed Berkshire sow, with a litter of seven pigs five days old, was discovered to be sick, and refused to eat. No cause for her sickness is known, unless she may have eaten something among the sea weed, half a cart load of which was thrown into the pen yesterday. Had been fed upon swill made with bran, or ground corn and barley, and buttermilk.

About ten o'clock, A. M. let her out of the pen, when she appeared to be blind, would turn around in a circle, or run against the fence, or any obstruction before her.

Turned her into a field of grass, when she kept moving around in a circle, with her nose to the ground, without eating the grass. Offered some buttermilk which she would not take.

Conceiving the disease to be in her head, I cut off the end of her tail, and slit her ears to bleed her, to which she made no resistance and no outcry.

After wandering about the lot until noon, the tail still trickling with blood, caught and threw her down to administer some medicine. Drawing her mouth open with a rope, the following dose was given, mixed with molasses, and made thin enough with water, to be easily poured down:

Recipe—Calomel, a tea spoon full.
Powdered jalap, two tea spoons full.
Sulphur, one tea spoon full.
Ginger, one tea spoon full.

Her paps being full and hard, put the pigs to her, but she took no notice of them, and kept moving as before.

In the afternoon had spasms, drawing her mouth and neck to the right side. Now thought that we should lose the sow and her litter, as the pigs were too young to feed. In order to save a part of them, however, three were given to another sow, which littered on the same day, and had pigs so much like them, that after being together a few minutes, we could not tell them apart.

In the evening the animal was no better, and the medicine had not operated. Caught her again, and poured down her throat, without much resistance, (as she had become weak and hardly able to stand,) a quarter of a pound of Rochelle salts, dissolved in warm water.

October 6th. The medicine has operated, and this morning the animal has improved; taking some swill, and during the day, some soft nubbins of corn. In the evening, rather languid and eating sparingly.

Oct. 7th. In the morning much better. In the afternoon well and lively as ever, eating her allowance, and taking care of her pigs.

Nov. 10th. The sow and her pigs all alive and doing well. RICHMOND.

MANAGEMENT OF HORSES.

Messrs. Gaylord & Tucker—I send you my experience and observations on the treatment and management of Horses. As there is no animal that contributes so largely to the comforts of man, as the horse, it is highly important that we understand their proper treatment.

With regard to the Colt Distemper, my practice is, whenever they show signs of that disease, to feed them tar; which I do by taking a small paddle, and with it putting the tar down about the root of the tongue and back teeth; this done a few days in succession, has always proved an effectual cure.

With regard to Botts, I only say with a writer in the Cultivator, keep the bott nit shaved off of your horses. I offer this advice from an experience of 40 years.

One of the most necessary arts in raising horses, is to understand castrating; but before I commence, I must say to my brother farmers, throw away all your traditional customs, such as your iron clamps, hazle sticks, searing irons, tallow candles, fat pork, cording twine, and a number of other operations, that only serve to torment and disable the animal. It is astonishing that such practices have continued for so many centuries. Throw the horse in the usual way, and with as little exercise for the horse as possible; after making him secure, without any further preparation, I proceed to extracting the castings precisely in the ordinary way of altering a pig, taking care not to cut across the veins, and to be very careful to scrape the cord of the casting off, instead of cutting it square off; this will prevent too much bleeding. I then apply a little salt and lard to the wound, rubbing a little lard on the loin to prevent cold; but do not know that those precautionary measures are necessary, for I have had them do equally well without using anything but the knife. In this way, horses will stiffen or swell but very little, and require no after applications, and in a few days they are fit for use. If they show too great a disposition to bleed, keep them from exercise for 24 hours.

Let me say to all who have skittish horses, cut off your blinds, and if your horses scare at a leaf, let them see that it is only a leaf. A horse is a reasonable animal, and if he has a chance to look around him, he is not going to run unless something shows a disposition to hurt him. If drivers would take the precaution to turn a horse's head quick towards the danger from which he cannot be reined, and let the animal see his danger, he would be as ready to shun the danger as his driver. Two years since, I had a pair of horses that would runaway at every unnatural touch or noise, until I cut off the blinds of the bridles, and they have never runaway since. To test the truth of this, put a blind bridle on a skittish ox, and he will be almost unmanageable. Respectfully, your agricultural friend. CLINTON SHATTUCK.

Galena, Ill. 1842.

RELIEF OF CHOKED CATTLE

Messrs. Editors—Some two or three years ago, I began to feed potatoes to my cows, and the first time I fed them one of them got choked, and bloated like a bladder. I took my knife and stuck it into her, just forward of the hip bone on the left side; the wind poured out; the bloat went immediately down; I turned her out of the stable, and she went to the field. After some two or three hours, I went to see her; she was lying down, and the potatoe was lying on the ground before her. Some two or three days after, I had another cow choked. She went through the same process, and with the same result. Sometime after that, one of my neighbors called on me, and said one of his best cows was choked with a potatoe. I went with him and tapped her as before described. I found the hole inclined to stop up by the moving of her skin. I took a goose quill, cut off both ends, and put it into the hole; the bloat went down, and I left her. Two or three days after I saw him, and he told me she threw out the potatoe after two or three hours, and was well. I have since fed a good many potatoes, and no accident has happened. I am of the opinion that this is the surest and most expeditious way of relieving dumb beasts, as well as the safest; at least it is the best way that I know of. Try it. P. OTIS.

Galway, Saratoga co. 1842.

Messrs. Editors—Your correspondent Richmond, (p. 200, vol. IX,) by consulting a surgeon, will learn that his method of operating on male animals, is more painful than it need be. The spermatic cord consists of three parts, viz: an artery, a vein, and a nerve. When a surgeon operates, he passes a ligature by means of a crooked needle, around the artery only, without including the nerve, which is the seat of feeling, and tying it will cause great pain, which will continue until the cord rots off. The nerve can be distinguished from the blood vessels, by feeling like a cord when squeezed, also being lighter in color. C. H. TOMLINSON.

Schenectady, Dec. 12, 1842.

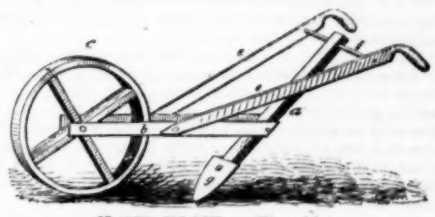
The Garden and the Orchard.

SECOND BLOSSOMING OF FRUIT TREES.

The past year, (1842,) has been remarkable for the numerous instances of second blossoms, and in some cases fruit, which have occurred on fruit trees, particularly the apple. In one instance in Missouri, the second crop matured, but this must be considered a very rare occurrence. By a number of the Gardener's Chronicle, edited by Prof. Lindley, we find that this second blossoming has not been confined to this country. He says in a reply to a correspondent, "there are many *freaks* of nature which we cannot understand or explain. Among them is the unusual circumstance of an apple tree (with apples on,) blossoming again at this season of the year."

In the cases which have fallen under our notice, this second blossoming could be clearly traced to injuries which the foliage of the tree had suffered. In the one case, the leaves and fruit were mostly stripped from the trees of an orchard by a hail storm, leaving them almost as sear and dry as if they had been scorched by a flame. In a few days new foliage began to appear, flowers on most of the trees showed themselves, and young fruit, and that which was mature, was afterwards to be seen on some of them. In another instance, one-half of an apple tree full of flowers, was stripped completely by the common caterpillar, which devoured both leaves and blossoms. Some of the branches thus stripped, afterwards showed many flowers with the new foliage that covered them, but it was too late in the season for the fruit to form, or at least to reach any considerable size. In these instances, the defoliation of the trees produced the same effect that their hybernation during the winter does; and the temporary check their functions received, was followed by similar results of new leaves and flowers. We once saw a branch of a common cherry tree covered with white blossoms, while the rest of the tree was loaded with fruit nearly ripened. An examination showed that the branch had received an injury, which by preventing the circulation, had doubtless in the same degree retarded the blossoming. In this case, the cause was somewhat different from that of the apple trees. Here it was simple retardation; in them injury caused a temporary suspension of the functions, and their renewal was followed by the same results which follow their annual winter suspension.

The fact that the blossoming of fruit trees may be retarded, may be turned to good account in those places where fruit is liable to be killed by late frosts in the spring. A layer of snow around the trunk, covered with straw, or the refuse tow of flax, will retard the blossoming of trees for two or three weeks, and to that extent lessen the danger from frost. Nature sometimes performs this effect on a great scale. The southern margin of Lake Ontario is an instance of this. It is well known that this tract of country is one of the best in the state for fruit, and this is in a great degree to be attributed to the influence of the lake. During the winter, this great body of water is cooled nearly to the freezing point, and as its temperature rises slowly in the spring, it has the effect of lowering the temperature of the air near it, and consequently of retarding the blossoming of fruit in the same degree. The destruction of the young fruit by spring frosts, is a thing there almost or quite unknown. The good effects of the lake are felt to an equal degree in the fall, as the heat of such a mass of water is given off gradually, and thus late fruit attains a maturity and perfection, unchecked by frost, elsewhere rarely gained.



HAND PLOW.—(Fig. 11.)

Messrs. Gaylord & Tucker—I send you a description of a hand plow, which if properly constructed, will, I think, be found to answer very well in loose soils. It is not intended for stiff land. Its construction is similar to that of the shovel plow so generally used in this region of country, with a wheel attached to the end of the beam in front. I do not now recollect the dimensions of the one which I formerly made, nor do I consider it essential, as each one can proportion it to suit his own fancy. The cut (fig. 11,) will give you a crude idea of its construction. Let *a.* be dressed out to the thickness of 2¼ inches, and three feet in length, to the lower end of which, let the shovel *g.* be attached with a screw. Take two pieces of scantling 3 feet 8 inches in length, one inch in thickness, and four inches in breadth, for the side pieces *b. b.*, and bore a large auger hole through one end of each, for the wheel *c.* to revolve in, and attach the other two ends to the sides of *a.* Construct a wheel *c.* 32 inches in diameter. The handles *e. e.* may be 3 or 3½ feet long, with sufficient breadth and thickness to give strength. Mortice a hole through *a.* 1 by 1¼ inches. Then dress *f.* so that it will fit the mortice exactly when [illegible] By boring holes through the handles *e.*

e. you can confine them to the extremities of *f*. The shovel *g*. may be made 4 inches broad, and 6 or 8 inches in length.

You will readily perceive that the wheel placed in front of the plow, answers the purpose of horse power; nothing being necessary but a plow boy, who by pressing his weight against the handles, causes it to go right "ahead." A YOUNG FARMER.

Wood Lawn, N. C. Sept. 23, 1842.

MOTT'S GARDEN VASE.—(Fig. 12.)

THIS is a representation of one of the cast iron Vases exhibited by Mr. J. L. Mott, of New-York, at the Fairs of the State Ag. Society and American Institute, and to which honorary premiums were awarded at both places. "In pattern equal to the finest Italian models, in durability far their superior, and embracing imitations of free stone, granite and marble. The cheap rate at which they can be furnished is another, and not a small recommendation of this invention of Mr. M." The Vase is 30 inches high, and 25 inches in diameter. They are sold plain, at $9—painted, with three good coats, at $11—in imitation of marble or granite, and japaned, $12,50.

GARDEN VEGETABLES.

EARLY CUCUMBERS.—The following has been found by the writer, an easy and successful way to raise them. Place small pieces of dead turf, as large as one's hand, just below the soil in a hot bed, and plant the cucumber seeds upon them. When the stems are two or three inches long, the pieces of turf are removed, plants, roots, and all, to rich garden soil, and they will advance rapidly in growth and produce fruit two or three weeks earlier than those planted in open ground. Suitable turf is easily obtained where grass has been inverted the previous summer or autumn. The young plants should be set out as soon as they will probably escape frost.

EARLY TOMATOES.—Where there is no hot bed, these nave been successfully started in pots kept in a warm room, and the fruit ripened a week or two in advance of those otherwise treated.

While the fruit is yet green, I have much accelerated the ripening, by removing the larger leaves from dense bunches of the fruit, and placing white boards behind them, so as to reflect the sun's rays strongly upon them. They soon became red, while the rest remained unchanged in color. Would not planting them, as well as many other of the smaller garden fruits, against a white washed fence or wall, prove of great advantage? It is estimated in England, that a good wall for fruit is equal to an advance of six degrees towards the equator; why then is this powerful means of producing early fruit, so generally overlooked in this country?

EARLY POTATOES.—It is well known that the eye end of a potatoe will yield a crop earlier by some days, than the root end. This appears to be owing simply to the earlier growth of the sprouts from the eye end. Earliness will be greatly increased by placing the seed potatoes in a box of moist sand, early in spring, in a warm place in the house; and then planting them when the shoots are about two inches long, taking care not to break them off.

STRAWBERRIES.—Many cultivators suffer their beds to run wild, and still obtain tolerable crops; but a still better way is to plant them in drills or hills, and *keep them so*. Hoeing or cultivation, benefits them as much as it does corn. By pursuing this course, the writer obtained *nearly a pint* of large, fat, plump strawberries from some single plants the past season.

LIME.—This success with strawberries, might have been partly owing to the use of lime. Its tendency to diminish the growth of leaves and stem, and increase that of seed and fruit, is well known. It had been applied two years before to the strawberry bed, at the rate of about half a bushel to a square rod. A similar effect was observed on tomatoes, when the manure they received, which was well rotted, had a small quantity of lime thoroughly mixed with it. The growth of their stems was moderate, and the product in fruit, very abundant. Others, manured without lime, grew abundantly in stem, and the product of fruit not quite so great. Slacked lime was used. The difference might have been owing to other causes; at any rate, more experiments are needed.

EARLY LETTUCE.—This was obtained at least *three weeks earlier* than other lettuce sown in the hot bed, by taking up plants, sown the previous autumn in open ground, and transplanting them into the hot bed as soon as it was made. They were urged forward in growth rapidly, by the new heat they received, and formed heads four or five inches in diameter, while the other lettuce was hardly an inch high.

SELECTION OF VARIETIES.—This is a matter of very great importance, where excellence in quality is desired. For lettuce, I have found the Early Curled Silesia, and Imperial Cabbage Lettuce, very good varieties. The latter forms large fine heads of great delicacy.

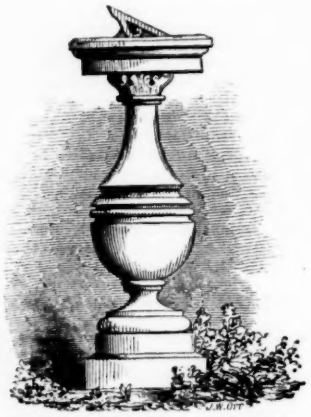
The best Cabbages appear to be the Early Sugarloaf, Green Savoy, and old fashioned large winter Drumhead. The Sugarloaf heads earlier than the Early York, and appears to be superior to it in quality. For those who like a very tender cabbage, the Savoy will stand pre-eminent. The character of the Drumhead we all know.

I have tried many varieties of the turnep for table use, and find none to satisfy most persons who have eaten them, better than the White Norfolk, whether for early or late use.

Of beets, the Bassano excels any that I have tried. It is very early, will keep through winter in moist sand, and is as much more delicate and sweet than the red turnep beet, as the latter is better than the old fashioned, stringy, long blood beet.

KEEPING ROOTS THROUGH WINTER.—The most convenient and neat method of doing this, is to procure barrels, hogsheads, or large boxes, place them in the cellar, fill them with the potatoes, turneps, beets, or other roots, and fill in the interstices with clean sand, which is to be kept moist. It is to be *clean* as a matter of convenience and neatness. One load will cover a large quantity of roots, and may be used for many successive years.

Macedon, N. Y. 1842. J. J. THOMAS.



THOM'S SUN DIAL.—(Fig. 13.)

"I count the hours that are unclouded."

The above is a view of the beautiful Sun Dial, cut in free stone by the celebrated Thom, which was exhibited at the late Fair of the American Institute. "Throughout the continent of Europe, and the British Isles," says Mr. Walsh, in his report on the subject, "gardens are considered incomplete without a sun dial, while no expense is spared in procuring such specimens as may throw all competition into the shade. We have in this piece of Mr. Thom's, all the qualities that excite the admiration of amateurs. Its height is 4 feet 4 inches, the lower portion of the base 21 inches wide, the upper 15½, the shaft 2 feet, and swelling gracefully out in the center, while the capital is 11 inches high. We regret to say, that from the very nature of the case, the highly finished oak leaf ornaments around the base of the capital, will be partly obscured from view, by the projection of the square designed for the gnomen. This disadvantage has been seen and guarded against, by the raised platform, on which Mr. T. has caused it to be placed."

GRAFTING.

IN the spring of 1841, a neighbor gave my son a few choice pear scions for grafting. Not being prepared with stock on which to engraft them, we looked around the farm and found a few young trees that had sprung up spontaneously along the fences and water courses, and for the want of better, took them for the purpose intended. Being novices in the art, we consulted the volumes of the "Cultivator," and found therein, directions for performing the necessary operation, and a recipe for a composition to envelope the graft. But at that time we had not a single article at hand to make it.

What was to be done? My little boy was anxious to use the scions, and I wished to indulge him. In reflecting on the subject, I concluded that the envelope was intended to secure the graft in its new position, protect it from the weather and keep it warm. In looking over my medicine chest, my eye fell upon a roll of adhesive or sticking plaster, such as is used by surgeons, to draw together and dress wounds. This, said I, will do. The plaster was warmed and spread upon strips of rags, and then these strips were wound around the stock and the scions secured in their places.

In the course of the season, we were pleased to find that our grafts grew and flourished, and not one failed, and some are now of considerable size and length, though several have been bitten by cattle. Thus an emergency has shown that surgeon's adhesive plaster will answer to bind and retain scions in their place, when removed to another tree. RICHMOND.

A TELESTICH.—NEW-YEAR'S SALUTATORY.

Another year is fled. "Time, as the weaver's shuttle, flies as swif T!"
Again, with sanguine hope—with zealous cheer, we loose our cable, launc H,
Dreaming each star and wind our friend, on the tumultuous sea of lif E.

Yet, long as years their endless cycles roll, in speech stentorfi C,
Through your fair columns preach, as e'er before, instruction wise. May yo U
Long live, "to sow in them the seed of knowledge agricultura L"—
To climb to those vast, boundless fields of scientific, living though T,
On science' hill; and there "*drink deep her crystal fountain*"—(that love I,)
Which shall, by proper culture, upward spring, and bring forth fruit—some V,
Some twenty, some an hundred fold. Press on until the arcan A
Of science is unfolded to your raptured gaze. May you have migh T
And wisdom to perform your arduous task and error to foreg O
And may your toils be crowned with bright success, through each revolving yea R.

Lansing, Tompkins Co. Jan. 1, 1843. Yours, as ever, S. E. T.

NOTICES TO CORRESPONDENTS, &c.

COMMUNICATIONS have been received during the past month from N. Reed, F. A. Phenix, M. T. M'Gehee, Wm. Partridge, Solon Robinson, John Moxon, W. H. Sotham, Chemist, Plowboy, Th. Gilbert, Magnolia, C. H. Tomlinson, A Lover of Good Poultry, J., A Constant Reader, J. J. T., A Wheat Grower of Western N. York, J. Odell, N. Darling, P. P., John Beach, E. Manley, A. B. Allen, Tweedside, D. Tomlinson, J. McD. McIntyre, S. E. T., Richmond, D. G. Mitchell, S. W. Jewett, H. W. S. C., R. T. Bentley, J. H. Young. K. Gallup.

BOOKS, PAMPHLETS, &c. have been received as follows;—From *Thos. Hancock*, Esq., Burlington, N. J., a continuation of the "Transactions of the Penn. Hort. Society,"—from some unknown friend, "Address of Hon. Garrett Andrews to the Planters' Club of Hancock County, Ga."—from *Tappan & Dennett*, publishers, Boston, Sparks' "Life of Washington," 2 vols. 12 mo., and Smith's "Universalism Renounced,"—from *J. R. Ames* of this city, two large 12 mo. vols. entitled "The Bible of Nature, and substance of Virtue"—from the Author, "An Address before the Fredericksburgh Ag. Society," at its late meeting, by J. M. Garnett, Esq.—from the Author, "The Muck Manual," by S. L. Dana, M. D., 2d edition—from *E. H. Pease*, bookseller, of this city, Part I. of "Alison's History of Europe," and Parts I. and II. of Brande's "Encyclopedia of Science, Literature and Art," two valuable works, which are now publishing in parts, at prices lower than any useful work has heretofore been published—from the Author, "An Address before the Monroc Ag. Society at Rochester, Oct. 26, 1842, by Henry Colman, President of the Society"—from some unknown friend, "An Address by W. W. W. Bowie, Esq., before the Prince George's Co. Ag. Society, Nov. 3, 1842"—from the publisher, Charles Foster, Cincinnati, "The Western Farmer and Gardner's Almanac for 1843."

☞ It is not in our power to comply with the requests of Thomas Gilbert, Esq. Georgetown, New Brunswick, or "P. P." near Pittsburg, Pa., nor can we answer the inquiry of Parsons & Co. Flushing.